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Report on the Demographic Situation in Canada 1988

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ERRATUM

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Report on the Demographic Situation in Canada 1988

Page 75

Second Paragraph

Line 7

"It would be going too far to blame tobacco inhalation as the sole factor behind the considerable increase in lung cancer among females, who were practically unaffected 30 years ago. Other carcinogenic agents have multiplied in the air that we breathe daily. The female mortality rate for cancer of the respiratory tract increased more than fivefold in 35 years..."

should read,

"Various studies have documented that smoking is the single most important factor behind the considerable increase in lung cancer among females, who were practically unaffected 30 years ago. The female mortality rate for cancer of the respiratory tract increased more than fivefold in 35 years..."

ERRATUM

Catalogue 91-209E

Report on the Demographic Situation in Canada 1988

Page 75

Second Paragraph

Line 11

"Other carcinogenic agents have multiplied in the air that we breath daily"

should read,

"Although inhalation of tobacco smoke is probably the most important cause, other carcinogenic agents have multiplied in the air that we breath daily".

Current Demographic Analysis

Report on the Demographic Situation in Canada 1988

Jean Dumas
Demography Division

with the collaboration of Carl Grindstaff
University of Western Ontario

Published under the authority of the Minister of Industry, Science and Technology

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Symbols

- .. figures not available.
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PREFACE

Demographic issues are gaining increasing prominence in Canada. In this volume, Statistics Canada provides a demographic overview of Canada for the third time, and addresses a number of issues which are important for an understanding of our changing society.

Population growth in Canada, although higher than in European countries, has slowed considerably. After a precipitous drop in the 1960s, fertility seems to have stabilized, but at a level below that required for the renewal of generations. Common-law unions are increasing, especially among young adults, and divorce is on the rise. The aging of the Canadian population, triggered by the decline in fertility, has been gaining momentum as a result of increasing life expectancy. Heart disease, the major cause of death in Canada, is on the decline, but no significant changes are noticeable in the rates of death due to cancer. International immigration has regained the strength it lost at the beginning of the decade, and is continuing to diversify in terms of source countries. Quebec reduced its interprovincial migratory deficit, British Columbia recorded a positive balance, and Ontario could become a loser in its migratory exchanges. These are some of the demographic developments discussed in this report.

Ivan P. Fellegi
Chief Statistician of Canada

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HIGHLIGHTS

For both 1987 and 1988, the population growth rate in Canada was 1.2 per cent; during the 1981-1985 period it averaged only 0.8 per cent. The higher rate during these two years can be explained by an increase in the number of immigrants.

XXX

At the end of the 1980s, Canada's population was younger than in most European countries, but older than in other "New World" countries such as the United States, Australia and New Zealand.

XXX

Fewer young Canadians are forming couples than was the case among their predecessors. On the other hand, the number of couples among seniors is proportionately higher than in the past, due primarily to the decline in mortality.

XXX

Common-law living is gaining momentum among young people, and, to a lesser extent, among older age groups. This form of cohabitation is, however, even more common in European countries such as France.

XXX

Since the peak of the baby boom each new generation continues to marry at an older age, and Quebec continues to have the lowest provincial marriage rate.

XXX

Among recent immigrants, most tend to marry someone from the same country of origin as themselves. This is particularly true within the Asian community. Although very evident among first marriages, it is also prevalent among remarriages.

XXX

The increase in divorce for both 1986 and 1987 can be attributed, for the most part, to the 1985 reform in legislation. For this reason it would be premature to conclude from these figures that there is a real rise in the trend toward divorce.

XXX

For the last few years, Canada's fertility rate has remained static at approximately 1.7 births per woman. This overall level of fertility is the result of a low fertility rate in Quebec combined with a higher rate in the rest of the country. Preliminary data for 1988 suggest that the downward trend in Quebec's fertility has probably come to a halt.

Based on examination of immigrant fertility levels, it cannot yet be said with certainty that immigrants have higher fertility than Canadian-born women.

XXX

The most recent life table published by Statistics Canada indicates a fairly noticeable increase in life expectancy for both sexes, but especially for men.

XXX

Over the past 10 years, the probability of living 20 years beyond age 65 increased by 17 per cent for males and by 12 per cent for females. Nevertheless, 65-year-old females continue to be twice as likely as men to survive to their 85th birthday.

XXX

Cancer-induced mortality is diminishing somewhat at the younger ages for both sexes. In the over-50 age group, it remains static among females but shows an increase among males. It is as if progress for men has meant prolonging the period between the onset of the disease and its fatal outcome.

XXX

A strong recovery in immigration has been apparent since 1987, following the slump which began in 1981, and the origin of immigrants has never been more diverse. In 1988, more than one-half of all newcomers were from Asia.

XXX

The impact of immigration on the age structure of the population of Canada is, for all intents and purposes, nil.

XXX

As a sign of a healthier economy, interprovincial migration has recovered the vigour it lost during the recession at the beginning of the 1980s.

XXX

Comparison of therapeutic abortion rates with fertility rates among the different provinces does not readily suggest a relationship between them.

XXX

The voluntary interruption of pregnancy, in the majority of cases, originates with young singles.

XXX

The number of children born to adolescent mothers is decreasing, but more adolescent mothers are raising their children. In terms of "economic success", teenage maternity engenders serious handicaps.

Over the long term, teenage maternity is associated with lower levels of education, lower salaries, and more modest jobs. This is as prevalent for the mother as for the spouse she married, whether marriage occurred before or after the child's birth.

A higher probability of divorce is linked to teenage maternity and marriage.

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PART I

DEMOGRAPHIC ACCOUNTS

The Demography Division estimated Canada's population at 26,094,200 persons as of January 1, 1989. This post-censal estimate was calculated with the component method from the June 3, 1986 census count of 25,309,330 persons. To the census population, additions and departures (births, deaths, immigrants and emigrants) are added and subtracted each year. It is the practice in Canada to replace after each census the post-censal estimates of the last intercensal period with the new intercensal estimates that take into account the latest enumeration. These intercensal estimates then become an integral part of the time series that enable the country's population growth to be traced through history. The replacement of postcensal estimates with intercensal estimates results in a discrepancy between the population figures, and the figures obtained by the component method. The "residual" (Table 1, column 9) must be interpreted as the sum of unknown errors in each component and imperfections in census enumeration.

The foundation of the adjustment practice rests on the assumption of accurate census enumeration, or more or less constant coverage levels, although no census can pretend to be perfectly exact. In the recent period, Statistics Canada used reasonably identical methods to evaluate population coverage levels. Coverage levels were calculated at 97.4 per cent for 1966, 98.1 per cent for 1971, 98.0 per cent for 1976, 98.0 per cent for 1981, but at only 96.8 per cent for 1986. The 1986 coverage level, although slightly lower than in the past, does not distort in any important way the rates used to assess the evolution of principal demographic trends. This information, however, should be borne in mind when interpreting the more precise rates if such rates differ appreciably from those in preceding periods. Observed changes may be statistical artifacts induced by imperfections in the denominator used to calculate the rates. Postcensal estimates, by their method of calculation, do not generate a residual.

A residual would signify in this accounting logic that with census coverage fairly consistent, the components are in error. The birth, death and immigration components are not suspected of strong registration deficiencies. But it is possible that emigration was underestimated, as indicated by a positive residual, even though there are no statistics to suggest higher levels. Emigration under this logic would have been overestimated in periods preceding 1981, when the residual was negative. An analysis that takes these observations into account might lead to the conclusion that emigration increased significantly over the past ten years. Without rejecting this hypothesis, it needs to be underlined that the coverage differential between the 1981 and 1986 censuses is alone sufficient to explain the positive 1981-1986 residual values.

Table 1. Natural Population Movement, Canada - 1960-1989 (Figures in thousands and rates in percents) (Official data)

Year	Population as of January 1 (1)	Annual Increase		Natural Increase		Net Migration ¹ (4)	Births (5)	Deaths (6)	Immi- grants ² (7)	Emi- grants ³ (8)	Residual (9)
		Number (2)	Rate	Number (3)	Rate						
1960	17,710.0	382.0	2.1	338.9	1.9	43.1	478.6	139.7	104.1	75.6	-14.6
1961	18,092.0	350.0	1.9	334.7	1.8	15.3	475.7	141.0	71.7	72.3	-15.9
1962	18,442.0	345.0	1.9	326.0	1.8	19.0	469.7	143.7	74.6	76.7	-21.1
1963	18,787.0	355.0	1.9	318.4	1.7	36.6	465.8	147.4	93.2	83.6	-27.0
1964	19,142.0	359.0	1.9	307.0	1.6	52.0	452.9	145.9	112.6	92.4	-31.8
1965	19,501.0	356.0	1.8	269.7	1.4	86.3	418.6	148.9	146.8	105.3	-44.8
1966	19,857.0	371.0	1.9	237.8	1.2	133.2	387.7	149.9	194.7	91.5	-30.0
1967	20,228.0	353.0	1.7	220.6	1.1	132.4	370.9	150.3	222.9	108.5	-18.0
1968	20,581.0	307.0	1.5	211.1	1.0	95.9	364.3	153.2	184.0	100.0	-11.9
1969	20,888.0	294.0	1.4	215.1	1.0	78.9	369.6	154.5	161.5	90.1	-7.5
1970	21,182.0	283.0	1.3	216.0	1.0	67.0	372.0	156.0	147.7	81.0	-0.3
1971	21,465.0	244.6	1.1	204.9	0.9	39.7	362.2	157.3	121.9	70.1	12.1
1972	21,709.6	232.8	1.1	184.9	0.8	47.9	347.3	162.4	122.0	63.2	10.9
1973	21,942.4	292.9	1.3	180.4	0.8	112.5	344.4	164.0	184.2	78.5	-6.8
1974	22,235.3	333.4	1.5	180.1	0.8	153.3	346.9	166.8	218.5	78.1	-12.9
1975	22,568.7	315.2	1.4	192.3	0.8	122.9	358.7	166.4	187.9	70.7	-5.7
1976	22,883.9	274.5	1.2	193.2	0.8	81.3	360.4	167.2	149.4	64.4	3.7
1977	23,158.4	259.0	1.1	193.2	0.8	65.8	360.7	167.5	114.9	61.4	-12.3
1978	23,417.4	227.1	1.0	192.0	0.8	35.1	360.2	168.2	86.3	63.5	-12.3
1979	23,644.5	267.4	1.1	197.9	0.8	69.5	366.1	168.2	112.1	54.7	-12.1
1980	23,911.9	309.4	1.3	199.2	0.8	110.2	370.7	171.5	143.1	45.2	-12.3
1981	24,221.3	262.1	1.1	200.3	0.8	61.8	371.3	171.0	128.6	43.7	23.1
1982	24,483.4	222.3	0.9	198.7	0.8	23.6	373.1	174.4	121.1	49.4	48.1
1983	24,705.7	190.1	0.8	198.7	0.8	-8.6	373.7	175.0	89.2	50.1	47.7
1984	24,895.8	194.6	0.8	201.3	0.8	-6.7	377.0	175.7	88.2	46.8	48.1
1985	25,090.4	183.6	0.7	194.4	0.8	-10.8	375.7	181.3	84.3	46.9	48.2
1986	25,274.0	218.9	0.9	188.7	0.7	30.2	372.9	184.2	99.2	49.0	20.0
1987(PD)	25,492.9	294.2	1.2	184.7	0.7	109.5	369.7	185.0	152.1	42.6	0.0
1988(PR)	25,787.1	307.1	1.2	188.6	0.7	118.5	374.8	186.2	159.4	41.0	0.0
1989(PP)	26,094.2										

Notes: ¹ Difference between column 2 and column 3.

² Based on Employment and Immigration data.

³ Estimate based on family allowance and income tax files.

⁴ Results from (3) + (7) - (8) - (2)

(PD) Definitive postcensal data.

(PP) Preliminary postcensal data.

(PR) Revised postcensal data.

The calculations are based on unrounded data.

Source:

POPULATION GROWTH

Thirty Years in Perspective

Although it has not shown systematic decline, Canadian population growth has slackened in both volume and rate over the past three decades. In the first half of the 1960s, the country gained an average of approximately 350,000 persons annually. For three years between 1982 and 1987, this figure barely reached 200,000. The annual growth rate fell from 2.1 per cent in 1960 to 0.7 per cent in 1985. Slight recoveries of 0.9 per cent for 1986 and of 1.2 per cent for both 1987 and 1988 were noted (Table 1). The downward adjustment of the 1981-86 intercensal population estimates probably magnified the decline in the growth rate in that half of the 1980s.

Natural increase was the largest factor behind declining growth. It has dropped almost without interruption from 1.9 per cent in 1960 to 0.7 per cent in 1986, and has remained at that level (Table 1). Natural increase has two components: births and deaths. Births fell from 478,600 in 1960 to 374,800 in 1988. An analysis of the time series shows that the 1960s marked the end of the baby boom, and that the years between 1975 and 1984 were the period of the now-past "echo effect". This ten-year echo, or slight increase in births, was the result of "baby boomers" of childbearing ages, who, despite declining fertility, were numerous enough to cause an increase in newborns. The baby-boom cohorts were so large that, even though fertility had declined substantially, the number of children born was almost unaffected. With the passage of these cohorts out of their childbearing years, beginning in about 1985, lower fertility has begun to have an impact on the number of births. Recent upward variations, such as that of 1988, can be attributed to the "catch-up" effect of births to older women who had postponed having children up until this point (see Chapter on Fertility). Slight increases in the number of births attendant upon a catch-up will be short-lived. If, however, these variations represent a durable shift to an older age pattern of childbearing, then a new level of fertility could be established. Its exact level is unknown, but one should not expect it to be very different from the current level.

Even if mortality rates have declined since the earliest year shown (1960), the number of deaths has increased steadily. Along with population growth, there has been a rise in the number of persons at more advanced ages. As such, the number of deaths can only be expected to increase in the future.

These observations imply what has been known for a long time, that since natural growth has declined in importance, immigration plays an increasingly vital role in Canada's population growth. The low growth rates of the 1980s correspond to years when immigration was down, whereas the higher rates of 1973 to 1977 were those when the influx of immigrants was much stronger.

Table 2. Rates¹ and Summary Demographic Indicators, Canada, Provinces and Territories, 1981-1987

	Year	New-foundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
Birth Rate (per 1,000)	1981	17.9	15.5	14.2	15.1	14.8	14.2
	1982	16.2	15.7	14.5	15.0	14.1	14.3
	1983	15.6	15.4	14.4	15.0	13.6	14.4
	1984	15.0	15.6	14.3	14.6	13.5	14.7
	1985	14.9	15.9	14.3	14.3	13.3	14.7
	1986	14.3	15.2	14.1	13.8	12.9	14.7
	1987	13.7	15.3	13.8	13.5	12.7	14.5
Total Fertility Rate (number of children per women)	1981	-	1.9	1.6	1.7	1.6	1.6
	1982	-	1.9	1.7	1.7	1.5	1.7
	1983	-	1.8	1.7	1.7	1.5	1.7
	1984	-	1.9	1.6	1.7	1.5	1.7
	1985	-	1.9	1.6	1.6	1.5	1.7
	1986	-	1.9	1.6	1.6	1.4	1.7
	1987	-	1.9	1.6	1.6	1.4	1.7
Total First Marriage Rate (per 1,000 persons ages 15-49)	1981 M	675.6	718.8	706.7	689.1	570.5	734.2
	F	648.4	689.6	685.2	667.6	578.0	715.9
	1982 M	682.5	722.5	674.6	652.4	523.4	731.2
	F	646.4	665.8	658.3	645.1	535.0	723.7
	1983 M	661.7	795.4	655.0	672.5	492.1	705.7
	F	624.6	746.2	641.2	664.7	504.7	701.2
	1984 M	607.4	805.4	656.8	659.3	494.7	700.3
	F	657.1	783.6	677.3	673.4	520.6	709.8
	1985 M	554.6	722.5	651.0	658.7	487.8	695.0
	F	532.1	731.2	661.9	668.9	515.4	708.0
	1986 M	614.9	739.8	630.3	638.3	461.9	681.4
	F	600.1	764.6	649.9	653.2	460.4	698.0
	1987 M	622.7	691.4	651.1	631.8	449.2	688.0
	F	596.1	700.8	672.4	646.1	456.7	717.9
Rate of Natural Increase (per 1,000)	1981	12.2	7.4	6.0	7.7	8.2	6.9
	1982	10.2	7.7	6.3	7.6	7.3	7.0
	1983	9.5	6.9	6.2	7.6	6.8	7.1
	1984	8.8	6.7	6.3	7.2	6.7	7.5
	1985	8.7	7.1	5.9	6.9	6.2	7.3
	1986	8.0	6.4	5.8	6.1	5.8	7.2
	1987	7.3	6.6	5.7	5.9	5.5	7.2
Total Growth Rate (per 1,000)	1981	-2.1	0.8	2.5	-0.6	5.8	7.4
	1982	6.9	5.7	6.6	7.5	2.3	11.2
	1983	3.5	11.3	8.6	7.5	2.4	11.2
	1984	-1.4	9.6	8.0	5.2	3.4	12.3
	1985	-4.2	4.8	3.8	1.4	3.9	11.4
	1986	-2.1	2.4	4.7	0.4	6.2	14.1
	1987	-1.4	11.8	4.6	2.1	7.6	18.0

See notes at end of this table.

Table 2. Rates¹ and Summary Demographic Indicators, Canada, Provinces and Territories, 1981-1987 - Continued

	Year	Mani- toba	Saskat- chewan	Alberta	British Columbia	Yukon	Northwest Territories	Canada
Birth Rate (per 1,000)	1981	15.7	17.8	19.0	15.1	23.2	28.4	15.2
	1982	15.6	18.1	19.5	15.3	22.5	28.6	15.2
	1983	15.9	18.0	19.5	15.2	23.5	30.3	15.1
	1984	15.8	18.0	18.9	15.4	22.4	28.6	15.1
	1985	16.1	18.0	18.7	15.0	19.8	27.8	14.9
	1986	15.9	17.3	18.5	14.5	20.3	29.1	14.7
	1987	15.7	16.8	17.7	14.2	19.5	29.4	14.4
Total Fertility Rate (number of children per women)	1981	1.9	2.1	1.9	1.7	2.1	3.0	1.7
	1982	1.8	2.2	1.8	1.7	2.0	3.0	1.7
	1983	1.9	2.1	1.9	1.7	2.2	3.2	1.7
	1984	1.9	2.1	1.9	1.8	2.2	3.0	1.7
	1985	1.9	2.1	1.9	1.7	1.9	2.8	1.7
	1986	1.9	2.1	1.9	1.7	2.0	3.0	1.7
	1987	1.9	2.0	1.9	1.7	2.0	3.1	1.7
Total First Marriage Rate ¹ (per 1,000 persons ages 15-49)	1981 M	745.8	727.3	676.4	734.6	753.3	479.1	679.2
	F	728.3	708.3	716.8	736.8	739.9	500.3	679.2
	1982 M	744.8	727.3	659.1	694.0	723.2	467.6	656.8
	F	728.3	719.5	714.4	708.4	688.4	477.6	663.2
	1983 M	718.3	701.9	621.8	678.1	696.4	488.3	632.4
	F	716.5	699.9	672.4	695.0	800.0	503.0	640.8
	1984 M	715.5	656.4	609.6	667.3	674.8	409.9	626.3
	F	723.4	671.7	663.5	695.0	658.5	468.0	647.7
	1985 M	689.7	634.3	605.3	638.0	588.3	347.5	615.4
	F	700.9	658.8	656.4	665.2	588.3	394.5	638.1
	1986 M	661.7	621.2	604.2	635.7	525.4	384.5	608.1
	F	686.7	653.7	642.8	669.8	603.9	423.6	619.9
	1987 M	659.1	624.1	603.1	662.2	492.6	342.6	605.7
	F	686.3	657.1	640.4	641.4	513.2	376.6	629.1
Rate of Natural Increase (per 1,000)	1981	7.2	10.0	13.3	7.9	17.1	24.1	8.2
	1982	7.4	9.7	13.9	7.9	17.5	23.8	8.1
	1983	7.7	10.3	14.1	8.2	18.6	25.4	8.0
	1984	7.9	10.3	13.4	8.2	17.8	23.9	8.1
	1985	7.8	10.1	13.0	7.6	14.5	23.7	7.7
	1986	7.6	9.4	12.8	7.2	15.5	24.5	7.4
	1987	7.6	9.1	12.1	6.8	15.1	25.6	7.2
Total Growth Rate (per 1,000)	1981	5.8	10.1	38.0	20.5	38.9	34.9	10.8
	1982	11.0	10.7	18.5	10.3	-25.8	40.0	9.0
	1983	9.7	11.5	2.7	11.0	- 4.4	26.4	7.7
	1984	9.2	10.2	0.5	10.3	21.6	29.7	7.8
	1985	7.0	3.8	8.5	7.1	- 4.3	15.5	7.3
	1986	6.2	2.7	4.8	8.7	29.4	-9.6	8.6
	1987	5.8	0.3	4.7	17.8	28.5	5.8	11.5

See notes at end of this table.

Table 2. Rates¹ and Summary Demographic Indicators, Canada, Provinces and Territories, 1981-1987 - Concluded

	Year	New-foundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
Net Migration Rate (per 1,000)	1981	-14.3	-6.6	-3.6	-8.3	-2.4	0.6
	1982	-3.3	-2.0	0.3	-0.1	-5.0	4.2
	1983	-6.0	4.4	2.4	0.0	-4.4	4.1
	1984	-10.2	2.8	1.7	-2.0	-3.3	4.8
	1985	-12.9	-2.4	-2.1	-5.5	-2.3	4.2
	1986	-10.1	-4.0	-1.1	-5.7	0.4	6.9
	1987	-8.7	5.2	-1.1	-3.8	2.1	10.8
Population Aged 65+ as a Percentage of the Total Population on June 1	1981	7.7	12.2	10.9	10.1	8.8	10.1
	1982	7.9	12.4	11.1	10.4	9.1	10.2
	1983	8.1	12.4	11.3	10.5	9.2	10.3
	1984	8.3	12.5	11.4	10.6	9.5	10.4
	1985	8.6	12.6	11.7	10.9	9.7	10.7
	1986	8.8	12.7	11.9	11.1	10.0	10.9
	1987 (PD)	9.0	12.7	12.1	11.4	10.2	11.1
Life Expectancy at Birth	1981 M	71.95	72.83	70.96	71.08	71.08	72.28
	F	78.65	80.49	78.37	79.19	78.71	79.03
	1986 M	72.69	72.57	72.24	72.51	71.95	73.47
	F	79.09	80.35	79.37	79.91	79.47	79.78
Infant Mortality Rate (per 1,000)	1981	9.7	13.2	11.5	10.9	8.5	8.8
	1982	10.8	7.8	8.6	10.5	8.8	8.3
	1983	10.6	8.4	9.4	10.6	7.7	8.0
	1984	9.2	8.2	7.8	7.8	7.3	7.6
	1985	10.8	4.0	7.9	9.6	7.2	7.3
	1986	8.0	6.7	8.4	8.3	7.1	7.2
	1987	7.6	6.6	7.4	7.0	7.1	6.6
Rate of Pregnancies Terminated (per 1,000 women 15-44 years of age) ²	1981	3.5	1.0	8.5	2.7	5.6	14.7
	1982	3.4	0.9	8.4	1.5	6.0	14.9
	1983	3.4	0.5	8.2	1.6	5.8	13.4
	1984	2.7	0.4	8.2	1.6	5.9	13.1
	1985	2.9	0.4	8.0	1.8	6.9	12.5
	1986	2.5	0.4	8.0	2.0	7.5	12.1
	1987						
Total Divorce Rate (per 10,000 marriages)	1981						
	1982						
	1983						
	1984						
	1985						
	1986						
	1987						

See notes at end of this table.

Table 2. Rates¹ and Summary Demographic Indicators, Canada, Provinces and Territories, 1981-1987 - Concluded

	Year	Mani- toba	Saskat- chewan	Alberta	British Columbia	Yukon	Northwest Territories	Canada
Net Migration Rate (per 1,000)	1981	-1.4	0.1	24.7	12.7	21.8	10.8	2.5
	1982	3.6	1.0	4.6	2.4	-43.2	16.2	1.0
	1983	1.9	1.2	-11.4	2.8	-23.0	1.0	-0.4
	1984	1.3	-0.1	-12.9	2.1	3.8	5.8	-0.3
	1985	-0.9	-6.3	-4.5	-0.5	-10.3	-8.2	-0.4
	1986	-1.4	-6.7	-7.9	1.6	13.8	-34.2	1.2
	1987	-1.8	-8.8	-7.4	11.0	13.4	-19.8	4.3
Population Aged 65+ as a Percentage of the Total Population on June 1	1981	11.9	12.0	7.3	10.9	3.0	2.8	9.7
	1982	12.0	12.2	7.3	11.0	3.3	2.7	9.9
	1983	12.1	12.3	7.4	11.2	3.5	2.7	10.0
	1984	12.2	12.4	7.6	11.4	3.5	2.8	10.2
	1985	12.4	12.5	7.9	11.7	3.4	2.7	10.4
	1986	12.5	12.7	8.1	12.1	3.8	2.9	10.6
	1987	12.7	12.9	8.4	12.5	3.7	2.9	10.9
Life Expectancy at Birth	1981 M	72.24	72.43	71.96	72.62	-	-	71.88
	F	78.77	79.61	79.06	79.55	-	-	78.98
	1986 M	73.00	73.65	73.51	73.96	-	-	73.01
	F	79.77	80.37	80.03	80.40	-	-	79.79
Infant Mortality Rate (per 1,000)	1981	11.9	11.8	10.6	10.2	14.9	21.5	9.6
	1982	9.1	10.5	9.8	9.9	21.0	16.2	9.1
	1983	10.4	10.1	8.4	8.8	18.5	20.8	8.5
	1984	8.6	9.4	9.6	8.6	13.5	17.3	8.1
	1985	9.9	11.0	8.0	8.1	10.8	16.7	7.9
	1986	9.2	9.0	9.0	8.5	24.8	18.6	7.9
	1987	8.4	9.1	7.5	8.6	10.5	12.5	7.3
Rate of Pregnancies Terminated (per 1,000 women 15-44 years of age) ²	1981	6.9	7.7	12.0	19.3	19.2	15.8	11.1
	1982	7.3	7.5	11.2	18.8	18.8	18.6	11.1
	1983	7.0	6.4	10.8	17.2	19.8	17.1	10.2
	1984	9.1	5.4	11.2	16.7	14.7	18.4	10.2
	1985	9.2	5.1	11.0	16.4	14.8	19.7	10.2
	1986	10.2	4.6	10.5	16.5	18.9	19.2	10.2
	1987							
Total Divorce Rate (per 10,000 marriages)	1981							3,529
	1982							3,655
	1983							3,522
	1984							3,306
	1985							3,121
	1986							3,799
	1987							4,314

¹ Rates are calculated for the calendar year.

² This rate cannot be compared with the total fertility rate.

Note: For 1986 and 1987, rates and indicators are calculated based on the average population between January 1 and December 31, as per definitive population estimates.

Source: Various Statistics Canada publications.

If the figures are to be trusted, they would indicate that Canada registered negative net migration between 1983 and 1985. But this is probably incorrect, and is rather a product of the accounting system used (see above).

The International Situation

Population growth is low throughout the countries of the Western World, primarily because these countries have now entered the final stage of the demographic transition. As the main population bloc, Europe has never had homogenous zones of population growth - such as Northern Europe, Central Europe, the Mediterranean, and so forth - that can be distinguished in terms of fertility, mortality, and other strictly demographic parameters. The interaction of natural increase and migration explains the nuances in the different low growth rates that are observed for each country (Table 3). France was the only highly-populated country in Western Europe, apart from Ireland (0.7%), whose growth rate, like that of the Netherlands, reached 0.5 per cent in the 1981-85 period. The Federal Republic of Germany registered negative growth and the United Kingdom, almost none.

At the beginning of the 1950s, after the Second World War, the population of the industrialized countries of the world totalled 850 million persons, or 35 per cent of the world's 2.4 billion people. At an average annual rate of 10 per 1,000, this population grew to 1.2 billion in 35 years. The rest of the world, meanwhile, developed at an average rate of 24 per 1,000, and grew from 1.5 billion to some 3.7 billion people. **The industrialized world now represents only one quarter of the planet's population.**

Those non-European countries in the industrialized world which were called, not long ago, "New Countries", still register annual growth somewhat higher than the European countries. According to the United Nations, Canada ranked third behind Australia (1.4%) and the United States (1.2%) with average annual growth of 1.1 per cent over the period from 1981 to 1985. **This already low growth rate may slow further, and possibly even become negative.**

Combined with natural increase, immigration has, until recently ensured a high growth rate for Canada, except at times of war and economic depression. But world economic changes in the post-war decades ascribed to Canada a different role from what she used to play and she has never reached levels of immigration known before the post-war decades (see Chapter on International Migration).

Natural increase itself is the main factor behind reduced population growth. Low, even decreasing population growth, need not be considered a catastrophe, but because of the disruption in age structure that it engenders, it imposes social transformations and poses new political questions. For this reason, certain authorities are disquieted about the low growth prospect, and seek means

Table 3. Average Annual Growth Rate (%) for the World's Largest Industrialized Countries, 1940-1986

Country	Period										Average 1981-1985
	1940-49	1950-59	1960-69	1970-79	1980-81	1982	1983	1984	1985	1986	
Northern Europe											
Sweden	0.9	0.7	0.7	0.4	0.2	0.1	0.0	0.1	0.1	0.2	0.1
Norway	0.9	0.9	0.8	0.6	0.3	0.3	0.4	0.3	0.3	0.4	0.3
Finland	0.8	1.0	0.5	0.3	0.4	0.5	0.6	0.6	0.5	0.4	0.5
Denmark	1.0	0.7	0.8	0.4	0.0	0.0	-0.1	-0.1	0.0	0.1	0.0
Western Europe											
Belgium	0.4	0.6	0.6	0.2	0.1	0.0	0.0	0.2	0.2	0.2	0.1
Austria	0.3	0.2	0.5	0.2	0.0	0.4	0.3	-0.1	0.0	0.1	0.1
France	0.6	0.9	1.1	0.6	0.5	0.5	0.6	0.7	0.0	0.4	0.5
Luxembourg	0.8	0.6	0.8	0.7	0.1	-1.0	0.1	0.8	0.1	0.0	0.2
Netherlands	1.3	1.3	1.3	0.8	0.8	0.6	0.4	0.4	0.4	0.5	0.5
Federal Rep. of Germany		1.1	1.2	0.3	0.3	0.1	-0.2	-0.4	-0.3	-0.1	-0.1
Switzerland	1.1	1.2	1.7	0.2	1.1	0.7	0.2	-0.3	-1.0	0.5	0.4
United Kingdom	0.5	0.4	0.6	0.0	0.0	0.0	0.0	-0.1	0.5	0.5	0.2
Ireland					1.2	1.2	0.8	0.7	0.4	0.1	0.7
Eastern Bloc											
USSR		0.0	1.3	0.9	0.7	0.8	0.9	0.9	1.1	0.9	0.9
German Democratic Rep.		-0.7	0.2	0.1	0.0	0.4	-0.1	-0.6	-0.2	-0.1	-0.1
Czechoslovakia		1.0	0.6	0.6	0.2	0.2	0.3	0.3	0.3	0.2	0.3
Yugoslavia		1.3	1.0	0.9	0.8	0.9	1.4	0.6	0.6	0.7	0.8
Romania		1.2	1.0	0.9	0.9	1.0	0.2	0.6	1.0	0.6	0.7
Poland		1.8	1.1	0.8	1.0	0.9	0.9	0.9	0.9	0.7	0.9
Hungary	0.0	0.7	0.4	0.4	0.1	0.1	-0.1	-0.2	-0.2	-0.2	-0.1
Bulgaria		0.8	0.8	0.5	-0.3	1.4	0.3	-0.8	0.1	0.0	0.1
Southern Europe											
Albania		2.8	2.9	2.4	2.3	3.4	0.8	0.8	2.1	2.1	1.9
Portugal	0.9	0.6	0.2	0.8	0.3	0.8	0.8	0.5	0.6	0.6	1.0
Italy	0.2	0.6	0.8	0.7	0.3	-0.7	-0.6	0.6	0.5	0.2	0.0
Greece		1.0	0.7	0.7	1.4	0.8	0.7	0.5	0.5	0.4	0.7
Spain	0.8	0.9	1.2	1.1	0.6	0.7	0.8	1.0	0.5	0.6	0.7
Non-European											
New Zealand	1.6	2.2	1.8	1.1	0.5	0.7	1.2	1.2	0.8	0.2	0.8
Japan	1.7	1.3	1.1	1.1	0.8	0.7	0.7	0.7	0.6	0.6	0.7
United States	1.3	1.7	1.3	1.0	2.1	1.0	0.8	1.0	1.2	1.0	1.2
Australia	1.5	2.3	2.9	1.6	1.5	1.6	1.7	1.2	1.2	1.4	1.4
Canada	1.5	2.4	2.1	1.2	1.3	1.2	1.1	1.0	1.0	0.9	1.1

Source: United Nations, *Demographic Yearbooks*.

to maintain positive population growth. Some governments have outlined pro-natalist policies, others greater openness toward immigrants, and still others, both.

POPULATION AGING

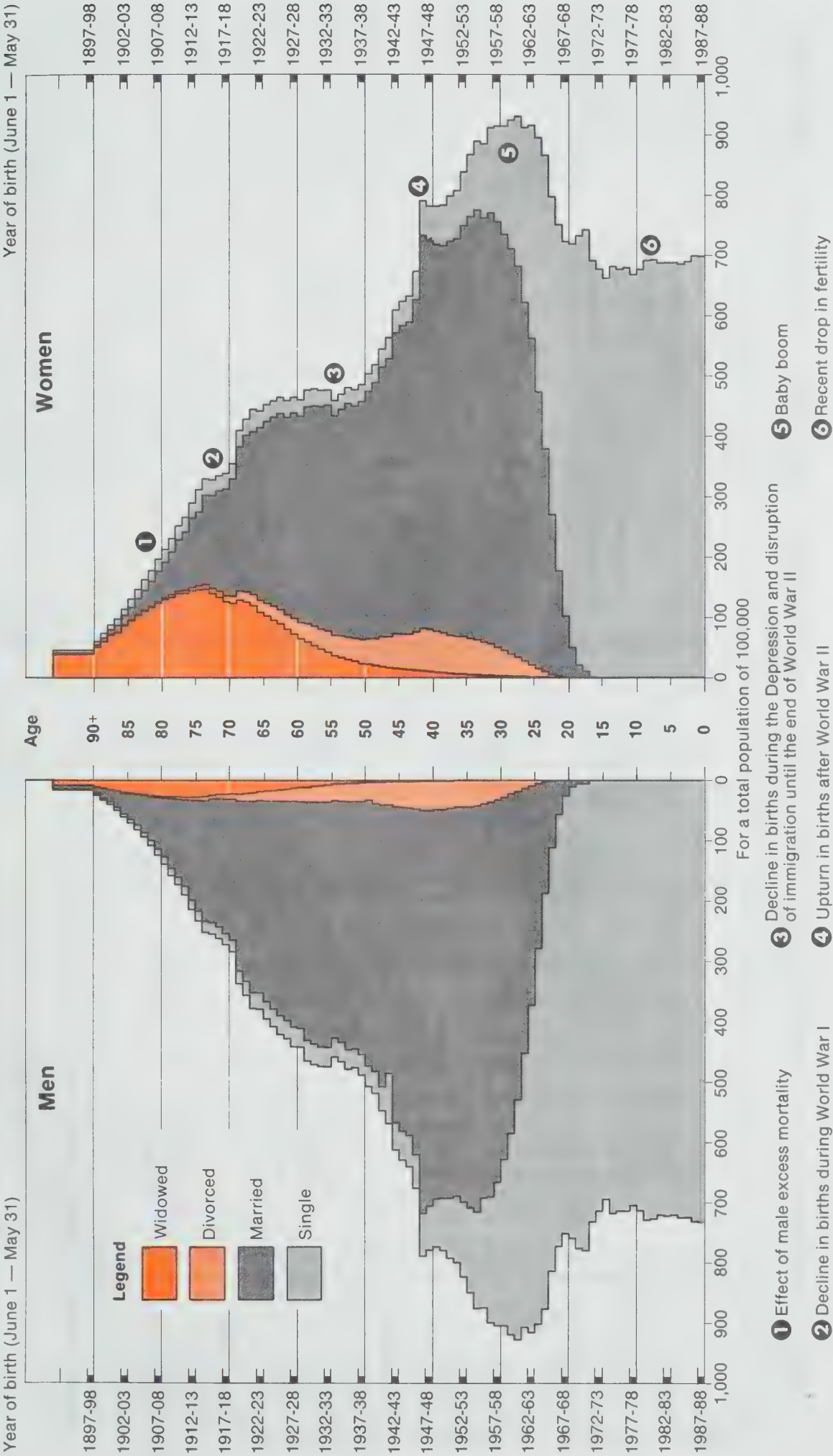
Aging is no longer a novel issue, but because of its economic and social consequences, it is no less haunting to policy decision-makers. Demographers cannot dispel uncertainty about future fertility trends. No one can predict the behaviour of generations who will be entering their childbearing period in the next few years, and even less the tendencies of future generations. Mortality trends can be predicted with greater certainty, but their variations will have only a weak effect compared with those of fertility. As for migratory movements, their range can be approximated over the medium term.

Consequently, the future age structure of the current population can be estimated, and comparisons of this structure and its attendant dependency ratios with the present situation can suggest the approximate economic and social changes that will result over the course of the proximal future. The Demography Division of Statistics Canada has projected the population of Canada and its provinces to the year 2011, based on alternative immigration levels of 140,000 persons and 200,000 persons annually. A comparison of the resultant population structures 25 years hence with current structures is interesting. To compare persons 20 years of age and over at the two dates requires a fertility hypothesis for the next five years. For the purpose of this comparison the assumption that fertility will remain at the current level was chosen. Results are given in Table 4.

The evidence clearly shows that the burden placed on other adults by the elderly will increase. Surprisingly, the choice of annual migratory flows, whether at 140,000 or 200,000 persons, makes little difference to dependency ratios in the year 2011. With an annual immigration of 60,000 fewer persons, the burden of the 65-to-74-year old population on other adults would creep up by only 0.2 per cent. The burden of the over-75 age-group would not increase any more significantly. Experts in various fields (economists at the Economic Council, The Conference Board, and so on) have attempted to measure the impact of aging on society's standard of living and have arrived at divergent conclusions. Demographers, on the other hand, generally limit themselves to simple calculations of the direction and extent of change.

The age structure of the Canadian population in 25 years as presented in Table 4, could elicit, on the surface, the image of a deteriorating future. But if we reflect on the change in the economic potential of persons of different age groups that has already occurred in the past 25 years, we may be less

Figure 1
Age Pyramid of the Canadian Population, June 1, 1988



Source: Demography Division.

Table 4. Distribution of the Population Ages 20 and Over by Life Segments Based on Two Immigration Hypotheses, Showing the Elderly Dependency Ratio, Canada, 1987 and 2011

Age group	1987		2011			
	Population	Dependency Ratio (as per 100 adults)	Population with immigration at 200,000 annually	Dependency Ratio (as per 100 adults)	Population with immigration at 140,000 annually	Dependency Ratio (as per 100 adults)
Male						
20-64	7,695.1	9.9	9,698.6	12.4	9,272.0	12.6
65-74	762.3	5.3	1,200.0	8.6	1,169.3	8.8
75 +	409.5		834.5		815.4	
Female						
20-64	7,783.7	12.1	9,830.9	14.5	9,372.0	14.7
65-74	942.9	8.8	1,428.0	14.9	1,381.3	15.3
75 +	681.6		1,465.2		1,429.9	
Together						
20-64	15,478.8	11.0	19,529.6	13.5	18,644.2	13.7
65-74	1,705.2	7.0	2,628.0	11.8	2,550.5	12.0
75 +	1,091.1		2,299.8		2,245.4	

Source: Statistics Canada, Demography Division, Population Projections.

concerned. It is generally agreed that, in spite of isolated setbacks, the average health of the population has improved to the extent that persons in any given age group now have a productive potential equal to that of younger persons a quarter century ago. In global estimates of future dependency ratios, it may no longer be justifiable to identify the same large age segments to reflect the economic roles of the individuals who comprise them¹. If we instead consider the adult group to be composed of those aged 20 to 69, rather than 20 to 65, the resultant dependent population for 2011 is given in Table 5.

Table 5 shows that dependency ratios for 2011 calculated under this accounting method will be more favourable than those for 1987. However bold, this method does not deny that a redistribution of burdens would be inevitable, that some institutions would be modified, and that traditional work arrangements would be questioned. It merely points out that progress in life improvement, realized almost daily, will without doubt, help us to cope with

Table 5. Distribution of the Population Ages 20 and Over by Alternative Life Segments Based on Population Projections, Showing Elderly Dependency Ratios, Canada, 1987 and 2011

Age group	1987		Age group	2011	
	Population	Dependency (per 100 adults)		Population ¹	Dependency (per 100 adults)
	(in thousands)			(in thousands)	
Male					
20-64	7,695.1		20-69	10,395.5	
65-74	762.3	9.9	70-79	881.2	8.5
75 +	409.5	5.3	80 +	456.4	4.4
Female					
20-64	7,783.7		20-69	10,631.7	
65-74	942.9	12.1	70-79	1,153.9	10.9
75 +	681.6	8.8	80 +	938.6	8.8

¹ Assumes 200,000 immigrants per year.
Source: Unpublished Population Projections 1985-2011, Statistics Canada Demography Division, Population Projections Section.

¹ Rapid changes have occurred in the life cycle in modern times. The childbearing period of women is now from ages 15 to 44 and sometimes even from 15 to 40 rather than from 15 to 49 as in the past. The working population after World War II was commonly quoted as individuals from ages 15 to 60. It is now hardly realistic to set the beginning of working life at age 15.

a transforming age structure at least in the medium term, and independent of technological advance and anticipated productivity increases (see Mortality section).

In the wake of this change, Canada is not alone. All the industrialized world faces problems linked to an apparently unavoidable aging of society. But the levels achieved and the speed of their development are not the same because of the way in which fertility dropped over the last century; an accelerated drop in fertility after the babyboom occurred in some countries. *Canada at the end of the 1980s is one of the most aged of the "new countries", but younger than any European country.*

According to United Nations population projections, Canada will remain "younger" than European nations until the year 2025, but will age faster than European countries as of the year 2010. This is also the case for the United States, Australia and New Zealand (Figure II).

MARITAL STATUS

Marital structure within a population takes time to evolve. Summaries drawn at the time of the quinquennial census are at a distance sufficient to establish comparisons and reveal trends in behaviour that cannot be detected in annual vital statistics.

The Proportion of Singles

Beyond age 40, a birth cohort evolves largely unaffected by marriage, so that the proportion of single people at this age in the cohort represents a final tally of nuptial intensity.² The lower the proportion single, the more members of that cohort have ever been married.

From the 1981 Census (Table 6) it can be observed that, of the male cohorts from the ages of 40 to 64, between 7.5 and 7.8 per cent were single. For female cohorts, these proportions were between 6.1 and 7.1 per cent. Approximate calculations reveal that these cohorts were at ages of high marriage propensity between the years 1943 and 1963 - the "baby-boom" period when both nuptiality and fertility accelerated. High marriage rates in the first years of the war may have also contributed to strong transitions from singlehood among the earlier cohorts in this group.

Past age 65, the proportion of single men rises, reaching 9.3 per cent of the 1902-1906 birth cohort (ages 75 to 79 in 1986). These generations were in their twenties between the late 1920s and the late 1930s - the Great

² Persons living in common-law unions are considered married in census statistics since 1981.

Table 6. Percentage Distribution of Population by Age Group Showing Marital Status and Sex, Canada, 1981-1986

Age group		Single		Married		Widowed		Divorced	
		1981	1986	1981	1986	1981	1986	1981	1986
Male	15-19	98.4	98.7	1.5	1.2	-	-	-	-
	20-24	71.9	79.2	27.8	20.6	-	-	0.3	0.2
	25-29	32.0	39.6	66.3	59.0	-	-	1.6	1.3
	30-34	15.0	19.6	82.1	77.2	0.1	0.1	2.8	3.1
	35-39	9.3	11.4	86.9	84.0	0.2	0.2	3.5	4.4
	40-44	7.8	8.3	87.9	86.2	0.4	0.4	3.9	5.2
	45-49	7.5	7.2	87.2	86.8	0.8	0.7	3.9	5.3
	50-54	7.8	7.1	86.8	86.5	1.6	1.4	3.8	5.1
	55-59	7.8	7.4	86.2	85.5	2.6	2.5	3.3	4.6
	60-64	7.6	7.4	85.5	84.8	4.2	4.1	2.7	3.6
	65-69	8.0	7.0	83.0	83.5	6.7	6.5	2.3	2.9
	70-74	8.4	7.4	78.9	80.0	10.8	10.3	1.2	2.3
	75-79	9.3	7.8	72.0	74.2	17.3	16.3	1.4	1.8
	80-84	9.2	8.6	62.1	64.7	27.7	25.3	1.1	1.4
	85-89	8.6	8.6	50.2	52.1	40.5	38.7	0.7	1.0
	90+	9.1	8.4	35.0	36.8	55.5	54.0	0.5	0.7
Female	15-19	93.3	95.3	6.6	4.6	-	-	-	-
	20-24	51.1	60.2	48.0	39.1	0.1	-	0.8	0.6
	25-29	20.0	25.7	76.8	71.4	0.3	0.2	2.9	2.7
	30-34	10.5	13.3	84.3	81.0	0.6	0.5	4.7	5.2
	35-39	7.3	8.6	85.9	83.5	1.1	0.9	5.7	7.0
	40-44	6.1	6.7	85.9	83.6	2.2	1.8	5.8	7.9
	45-49	5.8	5.8	84.7	83.2	4.1	3.5	5.4	7.5
	50-54	6.0	5.6	81.6	81.2	7.6	6.6	4.7	6.7
	55-59	6.3	5.9	76.8	76.8	13.0	11.8	3.9	5.6
	60-64	7.1	6.2	68.7	69.9	21.1	19.6	3.1	4.4
	65-69	8.5	7.0	57.6	59.6	31.5	30.1	2.4	3.3
	70-74	9.6	8.4	44.6	45.8	44.1	42.5	1.7	2.3
	75-79	10.3	9.6	31.2	33.0	57.5	55.8	1.1	1.6
	80-84	10.3	10.2	18.9	20.4	70.2	68.4	0.6	1.0
	85-89	10.2	10.2	10.4	10.5	79.0	78.7	0.4	0.6
	90+	10.4	10.6	4.7	4.6	84.7	84.4	0.2	0.4

Source: Statistics Canada, *The Nation: Population and Dwelling Characteristics*, 1986 Census, Catalogue No. 93-101

Depression and the difficult years that followed. The female cohort, after accounting for the usual age difference at marriage between the sexes, exhibits the same pattern. These observations tally with those that can be made about the evolution of marriage within certain cohorts from vital statistics. The proportion of elderly singles would be even higher if single persons did not have a higher death rate than persons in other marital statuses, and all the more for the older generations.

Figure II
Proportion of People Aged 65 +
in Some Industrial Countries

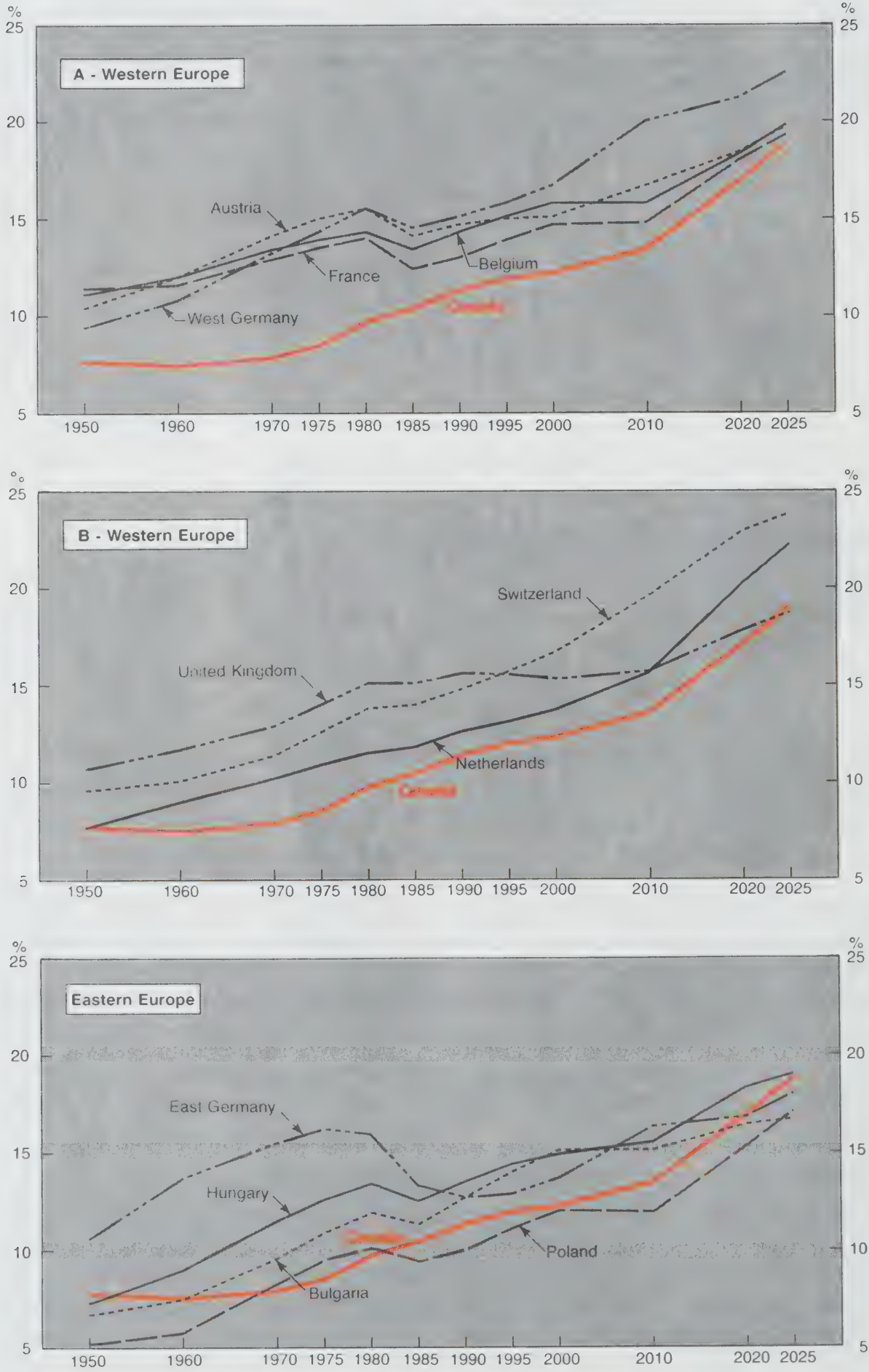
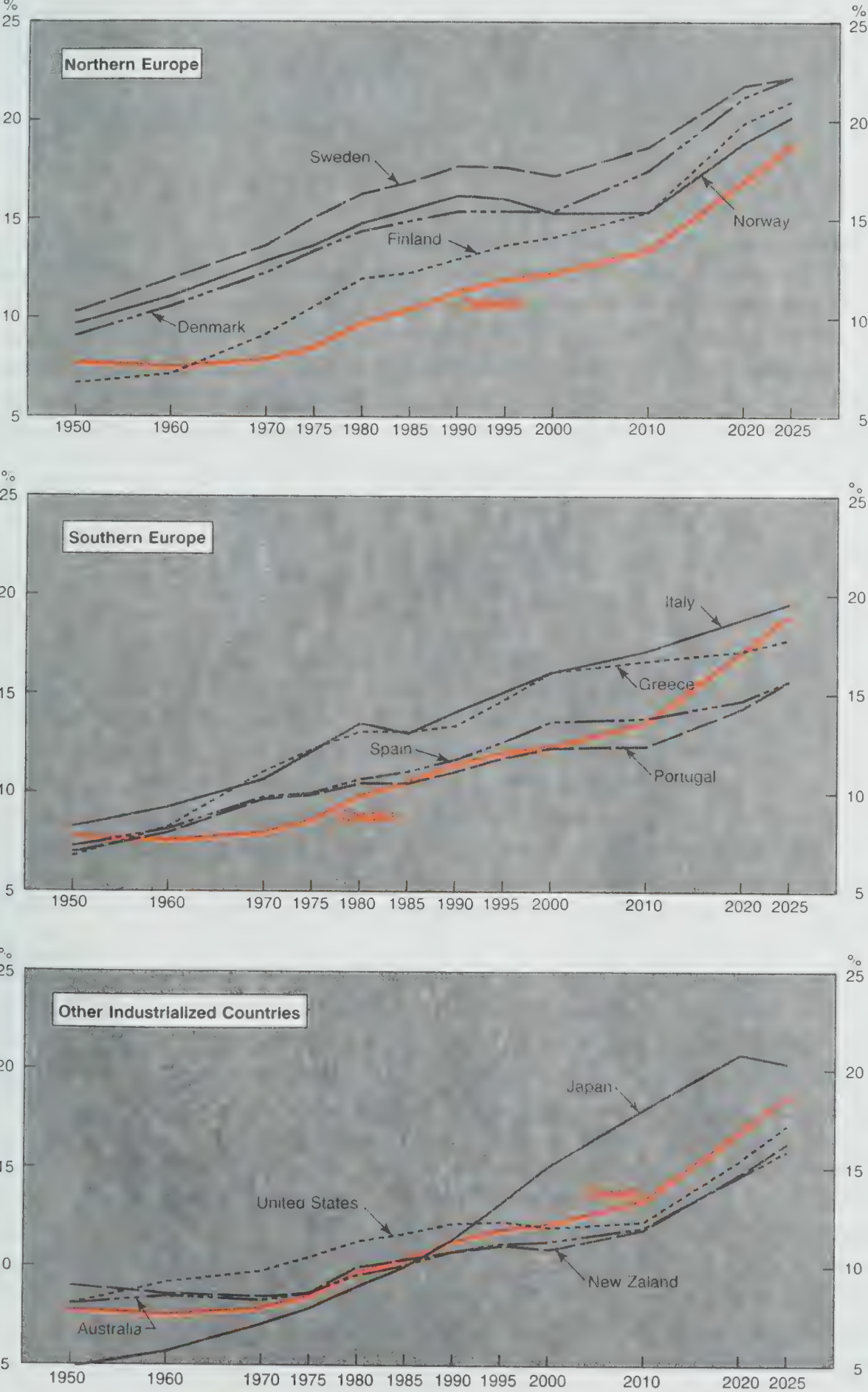


Figure II
Proportion of People Aged 65 +
in Some Industrial Countries



Source: U.N. Demographic Year Books.

A cohort represented through time by aging a group in two consecutive censuses has a decreasing proportion of singles. This is because the number of singles declines at a greater rate than the number of individuals in other marital statuses. Migration does have a significant effect on these proportions. Persons captured by the census before age 40 are still in their marriage prime, so marriage, more than differential mortality, accounts for the decline in the proportion of singles within the same cohort at two successive census dates.

Equally, different behaviour in nuptiality (the propensity to marry and variations in the average age at marriage) can explain differences in the proportion of singles who are in the same age group, but belong to successive cohorts. Fifteen per cent of men between the ages of 30 and 34 in 1981 were single, but by the time they were between 35 and 39 years of age in 1986, only 11.4 per cent were single. At this time, 19.6 per cent of the 30 to 34-year-olds (the next youngest cohort) were single. This pattern can also be observed for the other age groups, and confirms what has been observed for succeeding cohorts over several years: marriage later in life, with lessening frequency, or both. This is reflected in a decline in age-specific marriage rates.

The Proportion of Ever-Married Persons

The proportion of persons in other marital status groups (married, widowed and divorced) are more difficult to interpret because of the reversible nature of these states. It is observed that until age 65, there were fewer married men in 1986 than in 1981 at any given age, despite the fact that common-law unions, which have increased in number and are less likely to be disguised by the respondent, are now counted with marriages in the statistics. In the first part of the large life segment up to age 40, married persons were lower in proportion in 1986 because of a lower first marriage rate and a divorce rate higher than the remarriage rate. Over 40, the latter reason alone intervenes since the proportion of singles and widows were the same in 1981 and 1986.

Beyond age 65, the proportion of married people in each age group was higher in 1986 than in 1981. This results from several factors. Chief among them are a decline in mortality (a lower percentage of widows at these ages) and the remarriages of older men (a reduction in the percentage of single women, the same group of cohorts).

These observations are similar for women for the same reasons. Fewer women in each age group under 55 were married in 1986 than in 1981, but among those over 55, the reverse prevails. Widowhood is evidently more prevalent among women than men, and the proportion of widows increases with each age in each cohort. The proportion of widows at any given age, however, was lower in 1986 than in 1981 because of a continuing decline in the male death rate.

In conformity with the traditional pattern, women in a couple (in legalized and non-legalized unions) are younger than men. (In other words, they entered a relationship at a younger age.) Under age 25, 244,890 men, or 4 per cent of all men of that age, were in couples in 1986, compared with 482,110 women or 8 per cent of women of that age group. In contrast, 38 per cent of men over age 50 lived in a couple in 1986, compared with only 32 per cent of women. This results from the different experience of life course events (widowhood, divorce and remarriage) among men and women and their differential effects.

The census shows that there were fewer young couples (married and unmarried) in 1986 than in 1981 (Table 7). One of the reasons for this is the changing age pyramid. Given equal propensities to marry, a smaller group will have fewer married people than a larger group. There were approximately 17 per cent fewer 15 to 19-year-olds (both men and women) in 1986 than in 1981 (Table 8) as a result of declining fertility. But fewer young adults is not a sufficient explanation. The number of men and women in couples dropped by almost 40 per cent among women and 30 per cent among men. Consequently, 1.5 per cent of young men between the ages of 15 and 19 lived in a couple in 1981, as opposed to only 1.2 per cent in 1986. The rate for young women dropped from 6.6 per cent to 4.6 per cent (Table 7).

Similarly, there were 4 per cent fewer persons in the 20 to 24-year age group, although the number of couples dropped by 25 per cent for this group. In 1981, 28 per cent of men lived as part of a couple, but by 1986, only 21 per cent did so. Rates for women were 48 and 39 per cent, respectively. A review of the tables show that this phenomenon becomes less apparent with age until around age 60, when it reverses.

In summary, proportionately fewer young persons (men and women) were in couples in 1986 than in 1981, a difference especially marked in the 15 to 24-year age group. This can also be observed in civil marriage statistics. The difference is less marked among 25 to 29-year-olds and is insignificant for older persons because, the older people are, the greater is their chance of having been married and for a longer period. If any change can be noted at all, it is only a slight decrease, which, if real, implies that there was less marriage and remarriage than widowhood and divorce in the interim (if the migration effect is considered negligible).

The proportion of older persons (65 and over) in couples increased slightly, because more had ever married (nuptiality rose after World War I), and with a decreasing death rate, they had greater longevity. Some elderly people were also part of the trend toward common-law living.

Common-Law Unions

Preliminary Remarks

Common-law unions are analysed with respect to the statistical population of families and not of the total population. This universe excludes singles (who

Table 7. Change in the Population Structure Among Persons Living in Couples by Age Group and Sex, Canada, 1981-1986

Age group	1981			1986			Difference between 1981 and 1986		
	Population	Living in a couple	%	Population	Living in a couple	%	Population	Living in a couple	%
Male									
15-19	1,182,015	18,115	1.5	985,225	11,955	1.2	-16.6	-34.0	-0.3
20-24	1,174,295	326,060	27.8	1,131,450	232,935	20.6	-3.6	-28.5	-7.2
25-29	1,084,410	719,435	66.3	1,164,990	687,495	59.0	7.4	-4.4	-7.3
30-34	1,021,480	838,315	82.1	1,083,770	836,565	77.2	6.1	-0.2	-4.9
35-39	822,295	714,815	86.9	1,011,055	849,075	84.0	23.0	18.8	-2.9
40-44	674,665	593,165	87.9	810,935	699,030	86.2	20.2	17.8	-1.7
45-49	634,705	557,280	87.8	659,965	572,915	86.8	4.0	2.8	-1.0
50-54	621,660	539,745	86.8	616,195	532,775	86.5	-0.9	-1.3	-0.3
55-59	568,385	490,155	86.2	593,605	507,805	85.5	4.4	3.6	-0.7
60-64	462,385	395,205	85.5	530,465	449,830	84.8	14.7	13.8	-0.7
65 +	1,010,850	763,995	75.6	1,133,335	868,740	76.7	12.1	13.7	1.1
Total	9,257,145	5,956,285	64.3	9,721,200	6,249,120	64.3	5.0	4.9	-
Female									
15-19	1,132,875	74,365	6.6	939,605	42,900	4.6	-17.1	-42.3	-2.0
20-24	1,169,520	561,285	48.0	1,121,890	439,210	39.1	-4.1	-21.7	-8.9
25-29	1,093,200	839,640	76.8	1,176,520	840,015	71.4	7.6	-	-5.4
30-34	1,017,100	857,290	84.3	1,101,880	892,305	81.0	8.3	4.1	-3.3
35-39	807,955	693,870	85.9	1,015,120	847,185	83.5	25.6	22.1	-2.4
40-44	663,240	569,710	85.9	803,785	671,625	83.6	21.2	17.9	-2.3
45-49	620,645	525,585	84.7	655,915	545,395	83.2	5.7	3.8	-1.5
50-54	621,815	507,690	81.6	613,140	497,710	81.2	-1.4	-2.0	-0.4
55-59	611,530	469,605	76.8	609,590	467,875	76.8	-0.3	-0.4	-
60-64	516,930	355,130	68.7	594,670	415,590	69.9	15.0	17.0	1.2
65 +	1,350,130	538,720	39.9	1,564,150	642,255	41.1	15.9	19.2	1.2
Total	9,604,940	5,992,890	62.4	10,196,265	6,302,065	61.8	6.2	5.2	-0.6

Source: Statistics Canada, 1981 and 1986 Census, Catalogues No. 92-901 (1981) and 93-101 (1986).

are not children in a family), persons abroad or in institutions, separated persons, etc.

Census data present situations, so only limited and indirectly derived information on processes can be extracted from them. For example, nothing is known on the current marriage or common-law union order, or the duration of these states. Statistics taken at two different moments in time may be described and compared, but to link the two is difficult.

The Situation

The 1986 Census enumerated 486,920 common-law unions. This represents an increase of 134,720 (38.3%) over those recorded at the same time in 1981. Some 6.3 per cent of couples were in common-law unions then, as opposed to 8.3 per cent in 1986. In other words, one out of twelve couples in 1986 consisted of persons who were not married to each other. The importance of this increase is tempered by the assumption of a certain underestimation in 1981, as couples would have been more reticent to declare their status at that time. Since the number of all couples rose by 269,835 over this period (from 5,611,600 in 1981 to 5,881,335 in 1986), for an increase of 4.8 per cent, the propensity to live in a non-legalized union appears to have increased.

In 1986, 111,925 men, or 23 per cent of all men living in a common-law union, and 171,830 women, or 35 per cent of all women in such a union, were 25 years of age or younger. This is compared with only 11 per cent of men and 9.5 per cent of women over 50 (Table 8). These figures show that common-law unions are still strongly the province of youth, although it is not yet clear whether they are a phenomenon of age or generation. Common-law unions are renewable events like marriages, yet they are independent of marriages. One can live in a common-law union before, during or after marriage, divorce or widowhood. Single, divorced and widowed statuses are all relative to marriage, but this is not the case with common-law unions.

The prevalence of common-law unions (that is, persons in common-law unions as a proportion of all persons in couples) increased in each age group, and the younger the age group, the sharper the increase (Table 9). Whereas this development among young people reveals an increase in premarital cohabitation, other factors may have played a role at older ages:

- 1) The common-law unions of youth that have not yet ended in an intended marriage;
- 2) The late formation of first unions as common-law rather than legal partnerships;
- 3) The formation of second unions after divorce and widowhood as common-law rather than legal partnerships.

Table 8. Distribution of the Population Living in Couples by Type of Union, Age Group and Sex, Canada, 1986

Age group	Population living in:			
	Couples	Married	Common-law union	% of Common-law Unions among Couples
Male				
15-19	7,240	2,590	4,655	64.3
20-21	34,730	15,820	18,905	54.4
22-23	100,130	61,315	38,815	38.8
24-25	182,125	132,575	49,550	27.2
26-27	251,060	200,790	50,265	20.0
28-29	295,150	248,380	46,760	15.8
30-31	314,540	274,095	40,445	12.9
32-33	318,370	283,790	34,575	10.9
34-35	315,125	285,125	30,000	9.5
36-37	317,535	291,265	26,265	8.3
38-39	327,035	302,985	24,045	7.4
40-41	276,450	257,405	19,045	6.9
42-43	263,055	246,690	16,365	6.2
44-45	236,575	223,070	13,500	5.7
46-47	218,735	207,955	10,780	4.9
48-49	206,045	196,810	9,235	4.5
50 +	2,217,435	2,163,715	53,715	2.4
Total	5,881,335	5,394,415	486,920	8.3
Female				
15-19	36,690	15,155	21,530	58.7
20-21	97,555	56,250	41,305	42.3
22-23	187,780	132,995	54,790	29.2
24-25	263,895	209,685	54,205	20.5
26-27	310,360	262,485	47,870	15.4
28-29	335,100	293,690	41,410	12.4
30-31	339,840	305,395	34,440	10.1
32-33	334,805	305,260	29,545	8.8
34-35	320,010	295,470	24,535	7.7
36-37	314,255	292,990	21,265	6.8
38-39	318,155	298,535	19,615	6.2
40-41	263,860	248,695	15,185	5.8
42-43	249,510	236,375	13,130	5.3
44-45	224,325	213,735	10,590	4.7
46-47	206,635	197,815	8,820	4.3
48-49	194,285	186,965	7,325	3.8
50 +	1,884,285	1,842,920	41,360	2.2
Total	5,881,335	5,394,415	486,920	8.3

Source: 1986 Census, unpublished data.

Table 9. Prevalence Rate of Common-Law Unions¹ by Age Group and Sex, Canada, 1981-1986

Age group	1981	1986	Increase
Male			
15-19	56.9	64.3	7.4
20-24	27.1	38.0	10.9
25-29	12.9	18.9	6.0
30-34	7.6	11.4	3.8
35-39	5.6	8.1	2.5
40-44	4.3	6.4	2.1
45-49	3.3	4.9	1.6
50-54	2.5	3.8	1.3
55-59	1.9	2.8	0.9
60-64	1.5	2.2	0.7
65 +	1.0	1.4	0.4
Female			
15-19	47.8	58.7	10.9
20-24	20.8	30.3	9.5
25-29	9.8	14.8	5.0
30-34	5.8	9.2	3.4
35-39	4.5	6.7	2.2
40-44	3.4	5.4	2.0
45-49	2.6	4.1	1.5
50-54	2.1	3.1	1.0
55-59	1.6	2.4	0.8
60-64	1.4	1.9	0.5
65 +	1.0	1.5	0.5

¹ Number of persons in common-law unions per 100 unions. In a given age group, a union between spouses is a union in which the age of one or both spouses corresponds to that age group.

Source: Statistics Canada, unpublished data.

Changes in Common-Law Unions in Canada, 1981-1986

A comparison of the crude rates of any measure is not of interest unless the two populations have similar age structures, and this is rarely the case. Standardization overcomes this difficulty because frequencies are compared as if the two populations were in fact the same in age structure. To correctly describe how the prevalence of common-law unions have evolved over time and in the various regions, standardization is indispensable. Standardized rates here have been converted into base-100 indices to make variations more apparent. Table 10 shows that:

- the propensity of Canadians to live in a common-law union has greatly increased over five years (43%),

Table 10. Prevalence Rate of Common-Law Unions¹, Canada, Provinces and Territories, 1981-1986

Provinces	1981 Rate	1986 Rate	1981 Index ²	1986 Index ²	% Change between 1981 and 1986
Newfoundland	2.19	3.50	34	55	62
Prince Edward Island	3.18	5.20	50	81	62
Nova Scotia	4.92	7.40	77	116	51
New Brunswick	4.02	6.48	63	101	60
Quebec	8.13	13.65	127	213	68
Ontario	5.63	7.20	88	113	28
Manitoba	5.26	7.03	82	110	34
Saskatchewan	4.25	6.35	66	99	57
Alberta	6.61	8.15	103	127	23
British Columbia	8.12	9.90	127	155	22
Yukon	15.41	18.30	241	286	19
Northwest Territories	9.63	14.22	150	222	48
Canada	6.4	9.18	100	143	43

¹ See footnote 1, Table 9. Standardized for the Canadian population in husband-wife families by age, 1981.

² Index based on the 1981 rate for Canada.

- 1981 averages for two provinces (British Columbia and Quebec) were well above the national average (which is influenced by them). All other provinces except Alberta (whose average was the same as the national), and especially the Atlantic provinces, were below the national average.
- all provinces contributed to the national 1981-86 increase, but some more than others.

Generally speaking, the lower the propensity in 1981, the higher the increase in the 1981-1986 period. The two largest provinces present contrasting exceptions. Quebec had the highest common-law union prevalence rate in 1981 and it is in this province that it progressed the most. Ontario, whose rate was relatively low in 1981, was one of the slowest provinces to gain ground over the five years. As a result, there were almost twice as many common-law unions in Quebec as in Ontario³.

Who Lives in a Common-Law Union?

Even if common-law unions are now more frequent, their definition remains imprecise. It is agreed that a common-law union is made up of two people

³ Since the fertility rate in common-law unions is lower than that of marriages, common-law union living may explain in part the difference between the fertility rates of the two provinces (see Chapter on Fertility).

Table 11. Percentage of the Population Living in Couples by Age Group and Prevalence Rate of Unmarried Partners, France, 1988

Age group	Male			Female		
	% living in a couple	% not married	Prevalence rate	% living in a couple	% not married	Prevalence rate
21-24	29.8	12.7	43.0	53.9	19.3	36.0
25-29	71.0	16.9	24.0	80.5	11.3	14.0
30-34	79.5	9.5	12.0	84.0	8.5	10.0
35-39	81.2	6.6	8.0	86.2	5.2	6.0
40-44	90.0	3.4	4.0	84.2	4.6	5.0
Total	72.6	14.0	19.0	78.5	12.0	15.0

Source: Institut National d'Études Démographiques. Survey based on results presented by Henri Leridon and Catherine Villeneuve-Gokalp in *Population*, 43rd year, no. 2, March-April 1988.

Table 12. Distribution of the Unmarried Population by Marital Status and Age Group, France, 1988

Age group and sex	Marital status				
	Single	Divorced	Widowed	Married	Total
Male					
21-24	99.4	0.6	-	-	100.0
25-29	91.5	7.7	-	0.7	100.0
30-34	76.1	23.1	-	0.8	100.0
35-39	43.4	50.3	1.3	5.0	100.0
40-44	38.2	53.0	2.2	6.7	100.0
Total	79.9	18.2	0.3	1.6	100.0
Female					
21-24	96.9	3.1	-	-	100.0
25-29	81.0	16.6	1.6	0.8	100.0
30-34	53.0	45.9	-	1.1	100.0
35-39	47.6	52.0	0.4	-	100.0
40-44	39.7	48.6	-	11.7	100.0
Total	74.0	24.2	0.5	1.3	100.0

Source: Institut National d'Études Démographiques. Survey based on results presented by Henri Leridon and Catherine Villeneuve-Gokalp in *Population*, 43rd year, no. 2, March-April 1988.

who live together on a daily basis over an extended period of time, and who share privileges and obligations. Since divorce has become easier to obtain, the common-law union lacks fewer and fewer attributes to make it more or less the equivalent of a legal marriage, such as the official document of the date on which it was formed. It has become more like marriage in a social, though not in a judicial sense; hence the name “marriage without papers”. Now that both types of unions co-exist, it is interesting to see who lives in each.

The 1986 Census identified 973,840 persons in 486,920 common-law unions⁴. Both partners had been previously married in 24 per cent (116,356) of these couples. In 29 per cent of the couples, one partner had been single and the other had already been married. In 47 per cent (226,450), both partners had never before been legally married. The third group represents the most common type of partnership, and if age is considered, partners in these couples usually tend to be under 30: 157,472 out of 226,448, or 70 per cent. Young, never-married partners make up one third of all common-law couples.

Couples in which both partners came from a previous union broken by separation or divorce (94,539) represent almost one fifth (19.4%) of all common-law unions. Both spouses were over 50 in 10 per cent of these couples, so the average ages of these couples were higher overall (40 years for women and 43.7 years for men).

Comparison of the situations between 1981 and 1986 is not easy to establish since in 1981, 87,000 couples were of unknown “legal” marital status whereas in 1986, only 18,000 were so designated. If we ignore these cases, the following breakdown results for the three categories on the two dates:

1981		1986
43%	Single + Single	47%
28%	Already Married + Already Married	24%
29%	Single + Already Married	29%

The comparison shows an increase in the proportion of couples composed of singles, and a drop in the proportion of couples composed of two partners with a prior marital experience. The first increase is certainly not surprising given the considerable decline in first marriages. The second follows from the first since it is a question of proportions. Nothing in the nuptiality statistics

⁴ The census showed that among 18,640 couples, the woman recorded herself as presently married and living with her common-law spouse but, in 94 per cent of these cases, the spouse recorded himself as married. It is therefore easy to assume that these are couples who responded incorrectly by insisting that they consider themselves married, rather than declaring their actual common-law status. As they represent less than 4 per cent of the total, they were left out of the analysis but they could probably be proportionately distributed to the other categories without altering the overall picture. The figures used in this analysis were not published by Statistics Canada.

allows us to conclude that the situation has evolved since 1986 in an opposite direction from what is observed here.

It would be interesting to compare Canada with other countries that experience a similar level of development. Since common-law unions are by definition not legally sanctioned, numerical evaluations can only be indirectly obtained from diverse surveys that use different definitions, age groups, and so on. From fragmentary information gleaned from specialized journals, it seems that this social trend has grown to touch all industrialized countries.

A survey conducted in France in 1985-86 offers an illustration (Tables 11 and 12). This survey shows that common-law unions progressed strongly in France between 1968 and 1985, mainly among young single people (65.6% of common-law couples ages 21-44 were composed of two singles). Canadian trends are therefore not unique.

NUPTIALITY

After a sharp dip between 1985 and 1986, the number of marriages rose in 1987, but has since continued the long-term downward trend begun in 1981. First marriages, which still account for the majority of all marriages, followed the same pattern. The age structure of the population does not explain the abrupt drop in the 1986 rate, but this is not the first such variation. There was an even larger drop between 1975 and 1976, and an upturn between 1971 and 1972 (Table 13). The 1986 decrease was largely the result of a change in income tax laws. Given that income tax benefits granted to married couples in 1986 were only applicable to that part of 1986 when they were married, some marriages that normally would have taken place before December 31, and entitled the partners to receive benefits for the entire year under the former regulation, were postponed to 1987. There were far fewer December marriages in 1986 than in the past, as Table 14 clearly shows. With the financial advantage in marrying before the end of the calendar year no longer in effect, there were more January marriages in 1987 than in previous years.

First Marriages

A study of age-specific rates shows that nuptiality continues to decrease substantially year after year for women under 22 years of age. In the 1965 birth cohort, only 283 of every 1,000 women were married by the age of 23. In the 1955 cohort, ten years their senior, 533 women of every 1,000 were married by that age (see Table A2 in the Appendix).

If nuptiality is declining among youth, it is showing a notable increase among older women. The nuptiality curves for each cohort rise at an increasingly

Table 13. Marriages, First Marriages, and Remarriages, Canada, 1967-1987

Year	Number of marriages	Number of first marriages		Marriages in which at least one of the spouses had been previously married	
		Male	Female	Number	%
1967	165,879	151,883	151,488	20,417	12.3
1968	171,766	157,309	156,783	21,133	12.3
1969	182,183	162,853	162,690	27,494	15.1
1970	188,428	167,267	167,421	29,975	15.9
1971	191,324	168,944	169,072	31,698	16.6
1972	200,470	176,537	177,155	33,582	16.8
1973	199,064	173,355	174,135	36,047	18.1
1974	198,824	170,678	172,107	39,063	19.6
1975	197,585	167,022	168,817	42,300	21.4
1976	186,844	155,679	157,412	43,098	23.1
1977	187,344	154,906	156,854	44,750	23.9
1978	185,523	151,884	154,016	46,254	24.9
1979	187,811	152,731	154,982	48,309	25.7
1980	191,069	154,138	156,918	50,600	26.5
1981	190,082	151,978	154,506	52,340	27.5
1982	188,360	149,419	152,825	52,979	28.1
1983	184,675	144,960	147,968	53,342	28.9
1984	185,597	144,674	147,907	55,436	29.9
1985	184,096	144,009	146,718	54,632	29.7
1986	175,518	137,665	138,523	52,678	30.0
1987	182,151	138,454	139,324	60,106	33.0

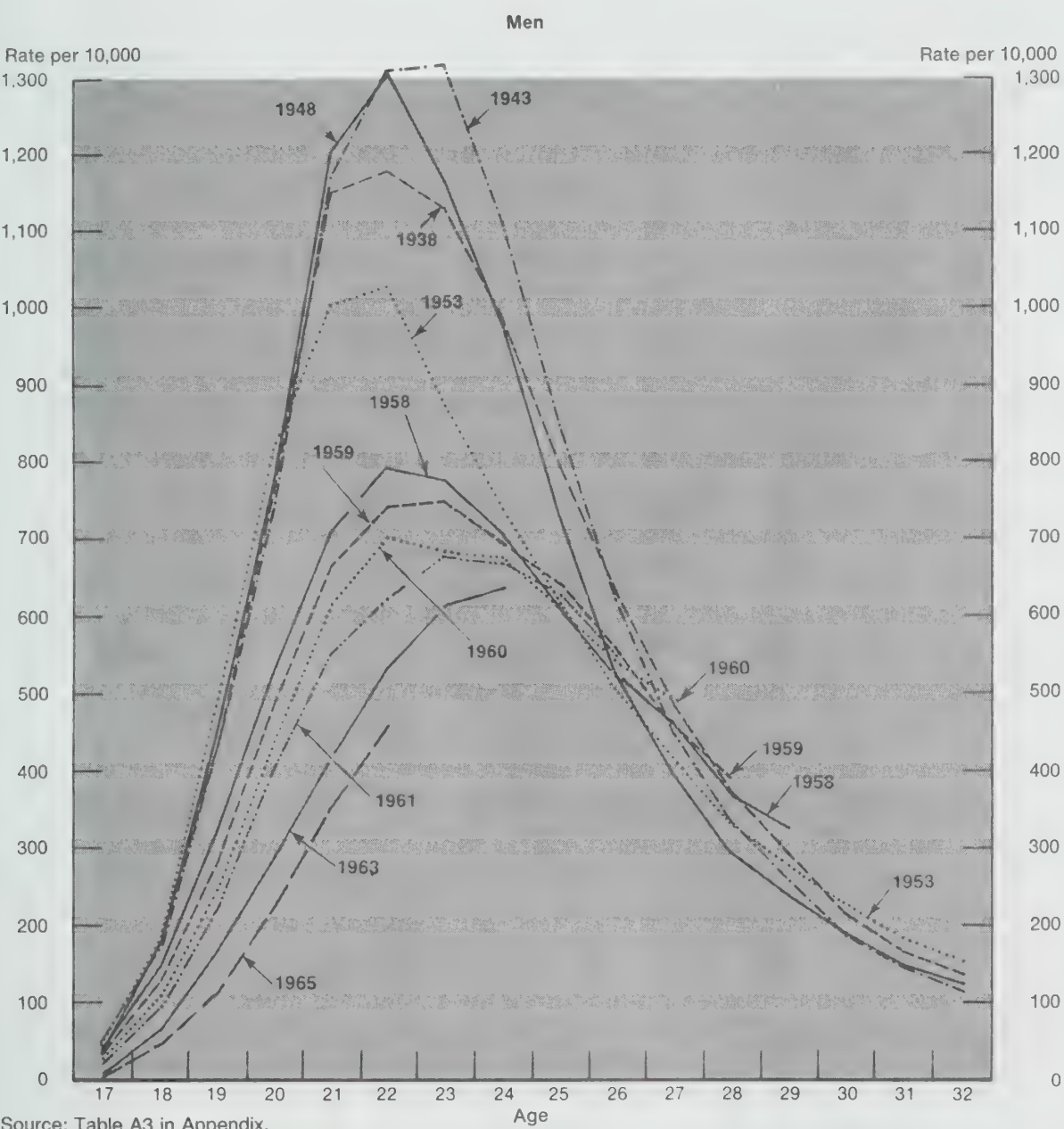
Source: Statistics Canada, *Vital Statistics*, Catalogue 84-205 Annual.

Table 14. Changes in the Number and Proportion of December and January Marriages, Canada 1983-1987

Year	Marriages in:		Total marriages for the year	Percent December marriages	Percent January marriages
	December	January			
1983	17,409	-	184,675	9.4	-
1984	19,269	4,243	185,597	10.4	2.3
1985	19,668	3,702	184,096	10.7	2.0
1986	11,164	3,678	175,518	6.4	2.1
1987	9,790	5,239	182,151	5.4	2.9

Source: Statistics Canada, *Vital Statistics*, Catalogue 84-205 Annual.

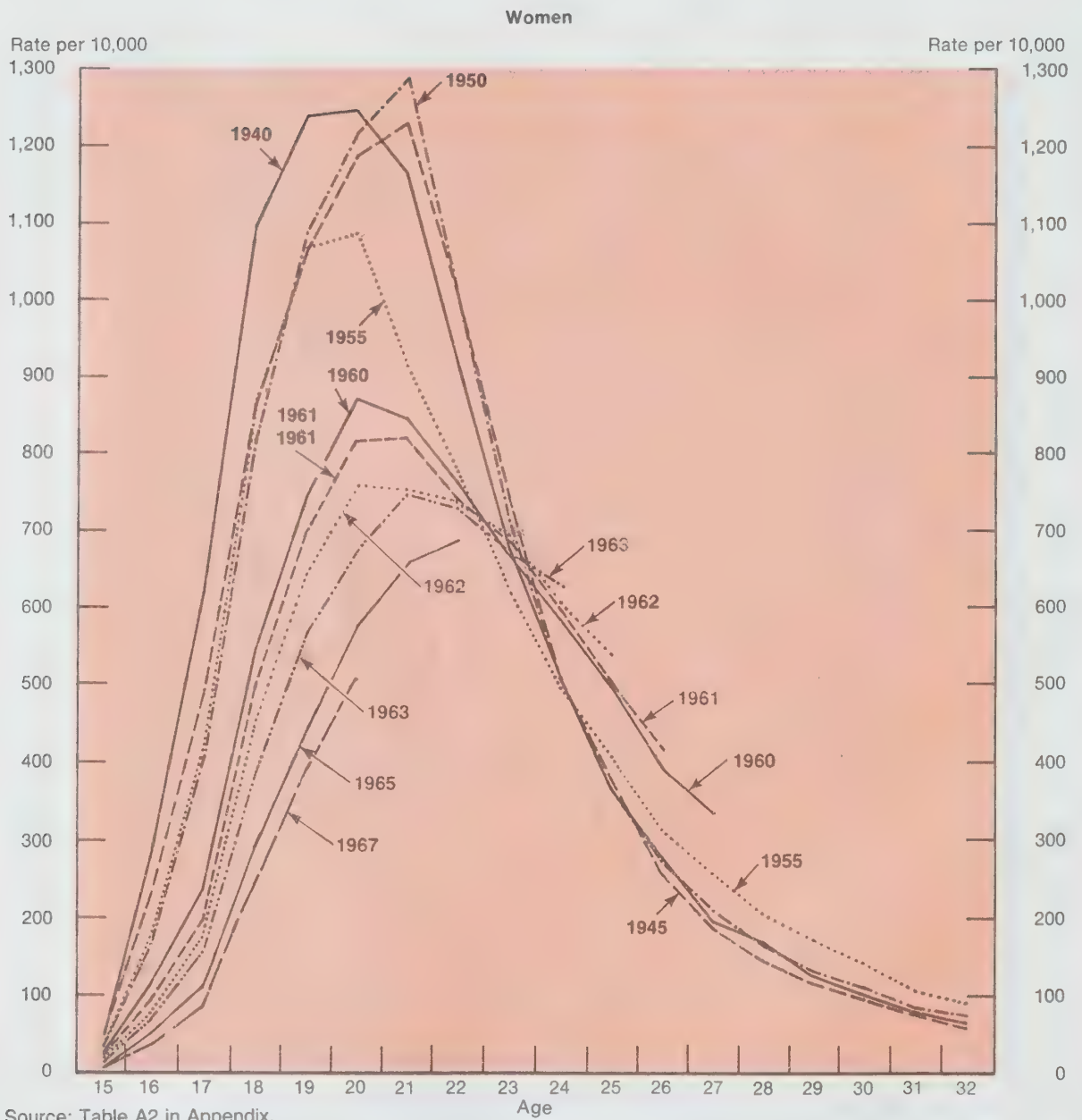
Figure III A
Age-Specific First Marriage Rates for Recent Cohorts, Canada



slower rate and to an increasingly lower peak, and cross one another further and further to the right with later marriages.

Male marital behaviour is similar. First marriage rates have declined year after year for every age up to 25, at which point they have been increasing. Change in the age distribution of marriages throughout both male and female cohorts, without presuming a final cumulative frequency, is represented by

Figure III B
Age-Specific First Marriage Rates for Recent Cohorts, Canada



a constantly declining total rate and a constantly increasing average age at marriage. By 1986, the rate touched a record level of only 603 first marriages per 1,000 males and 620 per 1,000 females. As low as they are, these rates probably err on the side of excess given the extent of population undercoverage.

Does this mean that, despite appearances, 1987 marks a halt in the decline? (Table 15).

Table 15. Total First Marriage Rate (number per 1,000), Canada, Provinces and Territories, 1985 and 1987

Province	1985		1987	
	Male ¹	Female ²	Male ¹	Female ²
Newfoundland	555	532	623	596
Prince Edward Island	722	731	691	701
Nova Scotia	651	662	651	672
New Brunswick	659	669	632	646
Quebec	488	515	449	487
Ontario	695	708	688	718
Manitoba	690	701	659	686
Saskatchewan	634	659	624	657
Alberta	605	656	603	640
British Columbia	638	665	662	692
Yukon	588	588	493	513
Northwest Territories	348	394	343	377
Canada	615	638	606	629
Canada excluding Quebec	661	682	661	689

¹ Ages 17-49 inclusive.

² Ages 15-49 inclusive.

Source: Statistics Canada, *Vital Statistics, Marriage and Divorce*, Catalogue 84-205, Volume II. The 1985 rate is based on final intercensal estimates, and the 1987 rate is based on final postcensal estimates.

Although interprovincial variations do exist, most provincial first marriage rates are above the national average. Quebec is the only province with an extremely low rate, in fact, the lowest that we know: At 449 first marriages per 1,000 males in 1987, and 487 per 1,000 females, rates are below the rest of Canada by 32 per cent and 34 per cent. A new change in the Quebec divorce law, which now divides property equally between divorcing partners, can only serve to augment continuing decline.

Ontario has the highest first marriage rate, at 688 per 1,000 males and 718 per 1,000 females. The sparse populations of Prince Edward Island, the Yukon and the Northwest Territories make for yearly rate fluctuations due possibly to chance. Low rates in the Yukon and Northwest Territories could result from the cultural characteristics of the population.

There is no doubt that increases in common-law unions, especially among youth, are at the origin of these weakening rates and their distributional change. We have already established that Quebec has the highest cohabitation rate in the country.

While first marriages have declined, remarriages have increased, after a slight drop in 1985 and 1986. Remarriages in which one of the spouses was once

married account for one-third of all remarriages; given that 92 per cent of the partners were divorced, 30 per cent ($.33 \times .92$) of all remarriages involve a divorced person (Table 13).

Immigrants and Marriage

More and more, Canada's population growth is the result of immigration from an ever-increasing number of countries. A considerable number of these immigrants are single and marriageable, and some will become so again after divorce or widowhood. There is no doubt that intermarriage is an important factor in the mingling of cultures and a powerful means of integrating various heritages into a unique mosaic. What is the current picture in Canada?

Statistics that can assess ethnocultural exogamy (marriage outside of a culture) in Canada are few and far between. Chief sources are the census, which provides information on the marital status of individuals as of census day, and vital statistics, which count marriages contracted by individuals.

Close to a million marriages took place in Canada between 1981 and 1985. The spouse's country of birth appears on the marriage register in each case. It is this comparison of the spouse's birthplace that furnishes the information to follow. This information is extremely limited, and it is necessary to make some explicit warnings. Although we know the birthplace of foreign-born people who married in Canada, we do not know how old they were when they arrived, nor to what ethnocultural group the Canadian-born bride or groom felt they belonged; nothing is known of their social or economic status. Considered from this perspective, cultural exogamy and endogamy cannot be assessed very accurately.

Of the 932,810 couples who married, 772,378 or 82.8 per cent of the grooms and 794,971 or 85.2 per cent of the brides were Canadian-born. Evidently, most marriages (716,921 or 76.9%) are those that united spouses who were both Canadian-born (here referred to as the first group). This means that 215,889 marriages (23%) involved at least one foreign-born spouse (here referred to as the second group). The 82,376 marriages between two foreign-born spouses accounted for 8.8 per cent of all marriages (38% of the second group). There were 78,050 marriages between a foreign-born woman and a Canadian-born man, accounting for 8.4 per cent of all (36% of the second group), and 55,457 marriages between a foreign-born man and a Canadian-born woman, accounting for 6 per cent of the total (26% of the second group).

These 932,810 marriages can be divided into two categories: those in which both spouses were single at marriage (662,741), and those in which at least one of the spouses had already been married (270,069) (Table 15). Each of these two types of unions represents a different pattern of choice. In the case of singles, 79.5 per cent of the marriages involved two Canadian-born

Table 16. Classification of Marriages Contracted in Canada Between 1981 and 1986, Based on Spouses' Birthplace

Total marriages			
		MALE	
		Canadian-born	Immigrant
F E M A L E	Canadian-born	716,921 (76.9%)	55,457 (5.9%)
	Immigrant	78,050 (8.4%)	82,382 (8.8%)
		932,810	

Marriages between singles			
		MALE	
		Canadian-born	Immigrant
F E M A L E	Canadian-born	525,005 (79.5%)	48,061 (7.3%)
	Immigrant	33,379 (5.1%)	56,296 (8.5%)
		662,741	

Marriages where one spouse was previously married

		MALE	
		Canadian-born	Immigrant
F E M A L E	Canadian-born	191,916 (71.1%)	29,989 (11.1%)
	Immigrant	22,066 (8.2%)	26,098 (9.7%)
		270,069	

individuals, 8.5 per cent two foreign-born individuals, 7.3 per cent a foreign-born man and a Canadian-born woman, and 5.1 per cent a Canadian-born man and a foreign-born woman. In all, 12.4 per cent were "mixed" marriages. They indicate, within the limitations of the data, a degree of integration.

In the case of remarriage among one or both spouses (270,069), 71.1 per cent of remarriages involved two Canadian-born people, 9.7 per cent two foreign-born people, 11.1 per cent a foreign-born man and a Canadian-born woman and 8.2 per cent a Canadian-born man and a foreign-born woman. In all, 19.3 per cent of the remarriages were "mixed", with one foreign-born and one Canadian-born spouse. What is surprising is not so much that the proportion of marriages of this type is high, but that it is not higher. Immigrants already once married are more likely to have lived longer in Canada, and therefore to have been exposed to the indigenous matrimonial market for a longer period of time, thereby increasing their chances of meeting a Canadian-born mate.

The size of the foreign community within a country influences the choice of a spouse, insofar as those who are foreign-born are more likely to marry someone from their own country of origin, especially if the foreign community in question is large and concentrated. Endogamy (the opposite of exogamy), is probably underestimated because even if an immigrant chooses a Canadian-born spouse, the spouse's parents are often immigrants from the same country of origin, especially in highly endogamous cultures.

Although there is never a large disequilibrium between the number of brides and the number of grooms by country of birth (except for some countries such as Italy and Greece), natives of certain countries have a greater tendency to choose a spouse from their own country or from one that is culturally, and even linguistically, similar to their own. Generally, women tend to be more endogamous than men.

Some immigrants are very restrictive in their choice. Marriage trends between 1981 and 1986 show that Chinese men who marry in Canada will, 87 per cent of the time, take a spouse born either in China, in a British colony in Asia or in another Asiatic country. Men born in India or in Pakistan will, 75 per cent of the time, choose a spouse born in India or in a British colony of Asia or Africa, where there are large Indian minorities. Japanese men choose a Japanese spouse 73 per cent of the time, and men from the British colonies in Asia marry natives of the same countries (India, China and other Asian countries) more than 75 per cent of the time.

Other immigrants are less endogamous: natives of British colonies in Africa (56%), natives of British colonies in South Asia (65%), Poles (52%), Portuguese (59%) and South Americans (53%). Finally, some are even less so: Greeks (33%), Italians (23%), Africans (19%), French (9%), Germans (10%),

Table 17. Marriages of Foreign-born Spouses¹ by Place of Birth, Canada, 1981-1986

G R O O M														
Place of Birth	Number	China	India and Pakistan	Japan	Other Asiatic Countries	British Colonies in			South America	Greece	Italy	Poland	Portugal	France
						Asia	Africa	America						
		4,581	6,771	799	10,706	6,560	3,377	9,974	7,734	2,044	10,406	3,168	5,886	2,685
	% of marriages in the same cultural group	83	74	73	83	78	61	64	57	33	23	52	59	9
China	4,262	2,726			242	778								
India and Pakistan	5,755		4,642		42	83	157							
Japan	914			550	11									
Other Asiatic Countries	12,087	312	116	34	8,260	437								
British Colonies in Asia	6,158	943	113		285	3,802								
British Colonies in Africa	2,755		117				1,892							
British Colonies in America	9,451							6,043	244					
South America	7,725							334	4,124				96	
Greece	1,079									666				
Italy	5,996										2,354			
Poland	3,084											1,633		
Portugal	5,166								72				3,378	
France	2,469													237
Germany	6,223													740
Holland	2,539													406
Yugoslavia	1,808													
Syria	909													867
														509

¹ Only groups with over 1,000 marriages were considered.
Source: Unpublished data and author's calculations.

Dutch (10%), Yugoslavians (35%) and Syrians (34%). Percentages for natives of Britain and the United States are equally negligible.

DIVORCE

Introduction

Divorce statistics measure the number of divorces granted in a given year and give a few characteristics on the broken union and the separated spouses. As such, they permit only limited inferences on the duration of the couple's life together, and do not allow for comparisons in time and space. The same Divorce Act applies nationwide, but the courts have different means of applying it. Time spans vary greatly from one court to another between the point of the divorce petition and the point at which it is granted. These time spans may even vary within the same court from one year to another. Fluctuations within the same cohort then, are not surprising.

Marital status, furthermore, is legal rather than social. Common-law unions that precede or follow de facto and legal separations complicate what might otherwise be simple interpretations of the stability and durability of marriages. It would be hazardous to draw conclusions about the propensity to divorce in different regions, partly for the same reasons. To this has to be added differential mobility between individuals or couples who, knowingly or unknowingly, are at a high risk of divorce and those who are not. Certain trends do emerge from the statistics despite these difficulties.

There were 78,160 divorces granted in Canada in 1986, an unprecedented increase of 26.1 per cent over the 61,980 divorces granted in 1985 (Table 18). Evidently, any change in the population structure cannot account for such a pronounced increase. It is therefore, strictly speaking, an increase in the propensity to divorce that is observed. All the rates by duration of marriage have shown an increase beyond those predicted (Table 19), and in the same way, the total divorce rate has increased from 3,121 per 10,000 marriages in 1985 to 3,799 in 1986 (Table 20).

A close study of divorce in recent years throws more light on this question. Since the first reform of the 1968 Divorce Act, the national total divorce rate increased steadily, from 1,367 per 10,000 in 1969 to 3,655 in 1982. A continuing progression within a certain margin was foreseen for the years to come, and abrupt declines in 1983, 1984 and 1985 came as a surprise. Systematic decrease in all the rates seemed suspicious. The 1986 Report on the Demographic Situation in Canada indicated that although they may have seemed like a decline, in fact they reflected couples who, in the process of separation, were awaiting the new provisions in the imminent reform of the Act. A dip in the United States' divorce rate could have alternatively suggested

Table 18. Number of Divorces Granted, Canada, Provinces and Territories, 1979-1987

Province	1979	1980	1981	1982	1983	1984	1985	1986	1987	Percentage change 1985-86	Percentage change 1986-87
Newfoundland	483	555	569	625	711	590	561	610	1,002	8.7	64.3
Prince Edward Island	144	163	187	206	215	195	213	191	246	-10.3	28.8
Nova Scotia	2,275	2,314	2,285	2,281	2,340	2,264	2,337	2,550	2,640	9.1	3.5
New Brunswick	1,223	1,326	1,334	1,663	1,942	1,427	1,360	1,700	1,952	25.0	14.8
Quebec	14,379	13,899	19,193	18,579	17,365	16,845	15,814	18,399	19,315	16.3	5.0
Ontario	21,793	22,442	21,680	23,644	23,073	21,636	20,854	28,653	34,233	37.4	19.5
Manitoba	2,152	2,282	2,399	2,392	2,642	2,611	2,314	2,917	3,771	26.1	29.3
Saskatchewan	1,528	1,836	1,932	1,815	2,000	1,988	1,927	2,395	2,751	24.3	14.9
Alberta	6,531	7,580	8,418	8,882	8,758	8,454	8,102	9,386	9,170	15.8	-2.3
British Columbia	8,826	9,464	9,533	10,165	9,348	8,988	8,330	11,176	11,697	34.2	4.7
Yukon	62	82	75	117	88	100	96	89	113	-7.3	27.0
Northwest Territories	78	76	66	67	85	74	72	94	105	30.6	11.7
Canada	59,474	62,019	67,671	70,436	68,567	65,172	61,980	78,160	86,985	26.1	11.3

Source: Statistics Canada, *Vital Statistics, Marriages and Divorces*, Catalogue 84-205.

Table 19. Divorce Rate¹ by Duration of Marriage as Predicted for 1986 Based on the 1976-1982 Trend, and as Observed in 1986, Canada

Duration	Predicted rate for 1986	Observed rate for 1986
0	11	10
1	83	70
2	169	145
3	225	202
4	285	252
5	299	262
6	290	261
7	261	246
8	243	224
9	218	195
10	194	190
11	192	167
12	158	154
13	146	149
14	139	141
15	130	125
16	120	118
17	117	118
18	115	112
19	106	109
20	105	104
21	94	101
22	91	99
23	77	85
24	72	81
25	68	78

¹ Per 10,000 marriages of the cohort.

Source: Statistics Canada, Demography Division.

that the Canadian rate had reached a plateau, or even an all-time high. But the marked 1986 increase at first glance pointed instead to a continuation of the 1970s trend.

Could the 1986 increase represent an artifact born of the law reform? The chief amendment introduced by the 1985 Act (as far as it concerns the statistical aspect of divorce) was the acceleration of court procedures. Some 59,672 divorces granted in 1986 followed procedures initiated under the 1968 Act, and 16,488 followed procedures initiated under the 1985 Act, which was more expeditious. Thus, were it not for the amendment to the Act, the 78,160 level would probably not have been reached.⁵ The artificial "boom" in the divorce

⁵ For 200 marriages in Ontario, this information is not available.

rate was therefore due to a veritable influx of cases processed more rapidly. It seemed clear that 1986 would not give sufficient time to absorb all the effects of the amendment, and that 1987 would again show the effects of the reform. Indeed, we note an increase in the number of divorce decrees in 1987 and in the total divorce rate, which rose to an unprecedented high of 4,314 per 10,000 persons. The 1987 records constitute 69,819 divorces granted under the new 1985 Act, approximately the same number as in 1983, 1984 and 1985; and 17,166 cases under the 1968 Act. If the information is taken at face value, notwithstanding this caveat, then a rate of 43 per cent of marriages to be broken by divorce before their 25th year could be foreseen.⁶ (It should be noted that some countries have already reached this point.)

One could well consider that instead future years will show a fall from the 1987 all-time high, and that the rate would eventually stabilize around 1982-1983 levels. The divorce rate measures, in effect, an equilibrium between opposing forces. Common-law unions reduce the number of marriages and so eliminate some of the high-risk marriages. Furthermore, property division is seen as an impediment to divorce by couples who have accumulated assets over the years. On the other hand, the uncounted time spent together in a common-law union accelerates the “wear and tear” process apparent in marriage, and double-income prosperity eases the separation of countless spouses with few or no dependent children.

Even if Canada has not reached the point at which marriage cohorts are decimated by divorce in proportions of over 40 per cent, divorce rates throughout the cohorts have been considerable. Some minor extrapolations shown in Table 19 indicate that 15.4 per cent at most of the 1961-1962 marriage cohort met with divorce, compared with a 23.3 per cent rate for the marriage cohort seven years younger, and 26.7 per cent for the 1971-1972 marriage cohort. These comparisons show the speed with which divorce has propagated itself in Canadian society.

Divorce increases in Ontario and British Columbia far exceed the national average, but this is probably not because of behavioural differences. The increase in divorce decrees, as in the case of Quebec some years ago, can have administrative origins. The “Official Guardian” in Ontario no longer conducts investigations each time children are involved in the breakup of a marriage. The abandon of this practice since 1986 accelerated divorce proceedings which, combined with the amendment to the federal Act, largely account for the surprising increase.

⁶ The composite index only takes into account divorces that occur in the first 25 years of marriage.

Table 20. Duration-Specific Divorce Rate (per 10,000), Canada, Marriage Cohorts 1943-44 to 1986-87

Year	Number of marriages per calendar year	Marriage cohort	Cohort marriages	Duration of marriage																									Year of observation	T.D.I. ¹																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			25																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
1944	104,656	1943-44	109,241																												44	1969	1,367																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
1945	111,376	1944-45	108,016																												51	50	1970	1,861																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
1946	137,398	1945-46	124,387																												52	56	48	1971	1,881																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
1947	130,400	1946-47	133,899																												48	55	49	46	1972	2,004																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
1948	126,118	1947-48	128,259																												47	56	50	54	1973	2,231																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
1949	124,087	1948-49	125,102																												50	58	52	60	58	1974	2,670																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
1950	125,083	1949-50	124,585																												51	60	55	58	59	68	64	1975	2,932																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
1951	128,408	1950-51	126,745																												51	64	61	59	60	73	69	71	1976	3,072																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
1952	128,474	1951-52	128,441																												53	65	63	62	63	74	76	69	1977	3,063																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
1953	131,034	1952-53	129,754																												54	69	70	64	67	75	80	76	69	55	1978	3,108																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
1954	128,629	1953-54	129,381																												50	74	64	62	71	86	82	78	75	70	62	1979	3,180																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
1955	128,029	1954-55	128,329																												57	73	65	68	69	85	83	75	70	68	65	1980	3,277																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
1956	132,713	1955-56	130,371																												59	83	71	73	77	87	90	89	78	74	69	71	1981	3,529																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
1957	133,186	1956-57	132,949																												67	82	76	75	78	92	105	96	87	85	74	66	1982	3,655																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
1958	131,525	1957-58	132,355																												61	79	81	81	83	91	101	97	92	84	82	77	78	73	66	1983	3,522																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
1959	132,474	1958-59	131,999																												68	91	82	80	86	96	105	103	92	89	80	78	83	75	67	67	1984	3,306																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
1960	130,338	1959-60	131,406																												70	93	95	91	97	111	111	110	100	95	90	84	91	87	76	67	64	1985	3,121																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
1961	128,475	1960-61	129,406																												73	97	95	95	97	119	119	116	108	100	95	94	95	94	81	76	64	78	1986	3,799																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
1962	129,381	1961-62	128,928																												71	105	99	106	103	121	133	123	115	108	97	96	98	105	88	79	71	81	84	1987	4,314																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
1963	131,111	1962-63	130,246																												71	114	113	114	131	133	134	124	118	104	99	107	105	91	85	78	85	93																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															</

Year	Number of marriages per calendar year	Marriage cohort	Cohort marriages	Duration of marriage																									Year of observation	T.D.I. ¹	
				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			25
1966	155,596	1965-66	150,557				42	93	112	128	143	156	162	163	148	137	130	120	121	115	112	101	92	104	112						
1967	165,879	1966-67	160,737			31	68	102	126	139	166	177	171	155	145	136	132	130	128	117	105	94	109	118							
1968	171,766	1967-68	168,823		17	49	75	115	142	162	183	173	165	156	151	136	138	138	117	109	96	112	120								
1969	182,183	1968-69	176,974	3	22	53	83	122	158	182	184	171	165	160	152	147	144	132	111	103	118	123									
1970	188,428	1969-70	185,305	3	25	55	92	151	177	192	192	176	174	163	162	157	139	128	112	118	130										
1971	191,324	1970-71	189,876	4	28	61	106	161	186	189	191	184	180	172	166	150	130	116	125	133											
1972	200,490	1971-72	195,907	4	33	74	117	174	193	196	197	191	187	185	168	144	125	141	141												
1973	199,064	1972-73	199,777	5	36	83	129	181	203	212	211	205	204	180	155	135	149	155													
1974	198,824	1973-74	198,944	5	44	94	136	184	213	226	228	218	189	168	146	154	163														
1975	197,585	1974-75	198,205	6	52	104	147	199	224	243	232	214	185	162	167	177															
1976	193,343	1975-76	195,464	8	59	111	161	218	249	246	226	193	167	190	184																
1977	187,344	1976-77	190,343	8	63	116	166	232	250	238	209	180	195	201																	
1978	185,523	1977-78	186,434	7	65	126	175	237	251	220	198	224	224																		
1979	187,811	1978-79	186,667	8	60	135	187	228	225	210	246	245																			
1980	191,069	1979-80	189,440	8	68	137	178	207	212	261	269																				
1981	190,575	1980-81	190,822	9	74	133	154	190	262	285																					
1982	188,360	1981-82	189,468	10	69	120	147	252	294																						
1983	184,675	1982-83	186,518	9	67	110	202	295																							
1984	185,597	1983-84	185,136	9	66	145	246																								
1985	184,096	1984-85	184,846	10	70	197																									
1986	175,518	1985-86	179,807	10	96																										
1987	182,151	1986-87	178,835	18																											

¹ Total divorce index.

Divorce by Duration of Marriage

An Overestimation

The study of divorce by duration of marriage has permitted, up to the present, fruitful analyses of marital dissolution. They confirm the hypothesis that although few in the first years of a union, reasons for divorce then reach a maximum and decrease gradually as the balance of benefits becomes more and more negative with time. This theoretical view satisfies a certain logic, and even if it is not a consensus in the sociology discipline, statistics corroborate it sufficiently enough for it to remain valid.

When all the necessary information (for example, by year and by cohort) is not available, half the sum of marriages contracted in the years $j - x$ and $j - (x - 1)$, where “ x ” is duration and “ j ” is year (that is, the midpoints between these two years) is used as a denominator to calculate divorce rates by duration of marriage. This is called the method “specific to initial figures”, and is the one used here.

Although very approximate from one theoretical point of view, this method is highly acceptable as long as mortality is low for the ages concerned and migratory movements are negligible. But care should be exercised when the method is used for countries with frequent migration such as Canada, which has always had more immigration than emigration. The approximate method in this case results in an overestimate in the divorce rate because dissolutions to marriages contracted outside of Canada are taken into account, but the marriages themselves are not. The measure could be refined by using only dissolutions and marriages contracted in Canada. This time the measure is a bit too low because it disregards the divorces in other countries of persons who married in Canada but have since left. The number of emigrants, however, is always lower than that of immigrants. Calculations for the last ten years are listed in Table 21. Comparison with more rigorous calculations in Table 20 shows that the differences seem to be important at very short marriage durations, and they tend to decline as marriage duration increases. The method of approximation gives a rate of 1,480 divorces per 10,000 specific to duration nine in 1985, while the more stringent measure gives 1,327 per 10,000, or 10 per cent less.

Unfortunately, this type of analysis can no longer be pursued since Justice Canada has not tabled place of marriage among divorcing couples since 1986. The analysis was an interesting indication of the accuracy of divorce measurement for the few years it was carried out.

Divorce and Marital Status at the Time of Marriage

It has long been observed that divorce risks differ according to the marital status of the spouses at the time of their marriage. The role of age and age

Table 21. Divorce Rate¹ (per 10,000) by Duration of Marriage² for Marriages and Divorces that occurred in Canada, 1976-1985

Duration	Years									
	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
	(all marital statuses at the time of marriage) per 10,000									
0	-	-	-	-	-	-	-	-	-	-
1		26	26	27	24	27	32	29	28	27
2			83	83	83	92	93	92	86	83 ³
3				132	135	148	154	147	126	118
4					187	185	201	186	166	157
5						240	230	226	207	191
6							244	239	214	200
7								229	207	194
8									142	185
9										172
	(divorced woman and single man at the time of marriage) per 10,000									
0	-	-	-	-	-	-	-	-	-	-
1		37	46	44	46	46	48	37	39	38
2			120	110	118	128	126	131	98	107
3				176	173	177	205	191	157	141
4					214	226	241	240	172	185
5						250	269	224	251	216
6							303	280	251	237
7								267	278	236
8									234	236
9										209
	(both spouses divorced at the time of marriage) per 10,000									
0	-	-	-	-	-	-	-	-	-	-
1		52	48	54	47	50	50	43	55	45
2			117	110	118	124	105	113	115	101
3				150	167	169	159	164	155	141
4					210	206	210	192	178	200
5						242	262	230	239	205
6							227	223	224	218
7								236	232	171
8									192	206
9										190

See notes at end of this table.

difference between spouses in terms of hypotheses of independence and continuity between divorce and its disruptive effects, is not well known. Numerical data, however, furnish some indications. For example, based on current indicators, it can be observed that after six years of marriage in each of 1982, 1983, 1984 and 1985, marriages of divorced women and single men

Table 21. Divorce Rate¹ (per 10,000) by Duration of Marriage² for Marriages and Divorces that occurred in Canada, 1976-1985 - Concluded

Duration	Years									
	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
	(single woman and divorced man at the time of marriage) per 10,000									
0	-	-	-	-	-	-	-	-	-	-
1		36	37	30	31	29	39	37	26	25
2			91	102	97	95	91	93	90	70
3				132	155	161	165	161	137	130
4					209	177	194	182	188	133
5						236	243	239	208	194
6							247	218	209	212
7								248	222	181
8									225	189
9										177
	(both spouses single at the time of marriage) per 10,000									
0	-	-	-	-	-	-	-	-	-	-
1		22	20	24	19	23	28	25	23	24
2			78	70	77	86	90	87	81	81
3				130	118	144	150	142	121	114
4					184	167	200	184	165	149
5						243	206	218	204	189
6							244	221	213	198
7								228	183	198
8									196	166
9										171

¹ Based on duration attained during the year.

² Cohort history shown on the diagonal.

³ Divorces in 1985 of marriages celebrated in 1983.

systematically show the highest failure rate, followed by marriages between two divorced spouses, a divorced man with a single woman, and finally, a marriage between two single persons (Table 21).

Analysis of the marriage cohorts themselves results in the same conclusions, that is, the risks follow the same order. Analysis by cohort also shows a seemingly identical tendency to divorce before the end of the sixth year of marriage from one cohort to another for 1976 and subsequent cohorts.

FERTILITY

Canada's fertility rate has fluctuated only negligibly in the past few years, and it is difficult to tell whether these minimal changes are real or merely

statistical artifacts of the population estimate used as the denominator in the calculation of the rate.⁷ Table 22 provides a synopsis of various total fertility rate (TFR) calculations. As shown, the 1986 enumeration of females by age group resulted in a TFR of 1.673; postcensal estimates based on the 1981 Census resulted in a TFR of 1.653; and the 1986 Census population, adjusted for undercoverage, resulted in a TFR of 1.596. Although probably the most accurate figure, the adjusted TFR makes the drop since 1981 seem unreasonably sharp, because the 1981 value is itself inflated by undercoverage, to a lesser, but nevertheless real and quantifiable, extent. To estimate the 1981-1986 trend, then, the 1986 female population must be adjusted for the undercoverage difference between the two censuses, and this gives a value of 1.641. This value can then be compared with the 1981 value of 1.700. Regardless of the method of calculation used, we end up with a TFR that stabilizes close to 1.7 children per woman. So as not to mislead, TFRs shown on the following tables have been calculated with unadjusted census figures, unless otherwise indicated.

This fertility rate is associated with an age structure in which the numbers of most fertile women diminish with the departure of the large “baby-boom” cohorts and the arrival of the small “baby-bust” cohorts. Growth in the number of new births has stagnated since 1985 in decreases of 1,304 from 1984 to 1985; of 2,815 from 1985 to 1986; and of 3,170 from 1986 to 1987 (Table 23). In the evolution of an age structure not favourable to procreation, unless there is a shift toward an earlier childbearing age, the occurrence of later maternities could have only a short-term effect on the number of births, which would then drop more steeply and rapidly.

Until recently, fertility in the province of Quebec has historically differed (usually higher) from the rest of Canada for various reasons. This is not to say that the other provinces have always shown behaviour similar to one another, but that gaps between them have always been less marked compared with Quebec. In the general downtrend of Canadian fertility in the last intercensal periods, the lower propensity to bear children has been so marked in Quebec that provincial government authorities have been preoccupied with the possible long-term effects on the cultural and political balance in the Canadian federation. In 1985, fertility stabilized in the rest of Canada, while in Quebec, it continued to slide.⁸ The stabilization at 1.75 children per woman elsewhere in Canada was the result of an increase in fertility in the first three birth orders among women between ages 25 and 40, and this offset the decrease in birth orders one and two among younger women; hence the higher mean age at childbirth. Quebec, on the other hand, experienced a decline in fertility for nearly all ages and birth orders.

⁷ The birth accounts are not suspected of any important gaps.

⁸ See Report on the Demographic Situation in Canada, 1986, Catalogue 91-209.

Table 22. Total Fertility Rate Calculated With Different Denominators, Canada¹, 1986

Denominator	Age group	Undercoverage in %	Population	Fertility rate and total fertility rate (per 1,000)
1986 Census data	15-19		939,600	23.56
	20-24		1,121,895	84.80
	25-29		1,126,520	124.69
	30-34		1,101,880	75.60
	35-39		1,015,120	22.58
	40-44		803,785	3.23
	45-49		655,915	.13
				<hr/> 1,672.94
Postcensal estimates for 1986 based on the 1981 census	15-19		943,950	23.46
	20-24		1,152,970	82.69
	25-29		1,191,870	123.14
	30-34		1,105,160	75.39
	35-39		1,020,640	22.47
	40-44		805,663	3.22
	45-49		660,333	.13
				<hr/> 1,652.54
1986 population adjusted for undercoverage (average for age groups)	15-19	3.58	974,451	22.68
	20-24	7.33	1,210,639	78.41
	25-29	3.71	1,221,850	119.91
	30-34	3.71	1,144,334	72.69
	35-39	1.37	1,029,220	22.25
	40-44	1.37	814,949	3.18
	45-49	1.53	666,106	.13
				<hr/> 1,596.25
Accounting for the undercoverage differential between 1981 and 1986	15-19	.78	918,242	23.36
	20-24	2.35	1,122,542	82.77
	25-29	1.79	1,172,950	122.40
	30-34	1.79	1,097,413	74.20
	35-39	.44	997,730	22.25
	40-44	.44	790,744	3.11
	45-49	1.12	650,647	.13
				<hr/> 1,641.10

¹ Excludes Newfoundland.

Table 23. Number of Births, Canada, Provinces and Territories, 1981-1987

Province	Year						
	1981	1982	1983	1984	1985	1986	1987
Newfoundland	10,130	9,173	8,929	8,560	8,500	8,100	7,769
Prince Edward Island	1,897	1,924	1,907	1,954	2,008	1,928	1,955
Nova Scotia	12,079	12,325	12,401	12,378	12,450	12,358	12,110
New Brunswick	10,503	10,489	10,518	10,360	10,121	9,788	9,588
Quebec	95,322	90,800	88,154	87,839	86,340	84,634	83,791
Ontario	122,183	124,856	126,826	131,296	132,208	133,882	134,617
Manitoba	16,073	16,123	16,602	16,651	17,097	17,009	16,953
Saskatchewan	17,209	17,722	17,847	18,014	18,162	17,513	17,034
Alberta	42,638	45,036	45,555	44,105	43,813	43,744	42,110
British Columbia	41,474	42,747	42,919	43,911	43,127	41,967	41,814
Yukon	536	525	540	519	464	483	478
Northwest Territories	1,302	1,362	1,491	1,444	1,437	1,507	1,523
Canada	371,346	373,082	373,689	377,031	375,727	372,912	369,742

Source: Statistics Canada, *Vital Statistics, Births and deaths*, Catalogue No. 84-204. Data unpublished since 1987.

The last two years (1986 and 1987) show no net change (Table A4 in Appendix). Even with intercensal estimates, which tend to push the rate upwards (Table 24), trends for Canada still show that women give birth at an older age. *But it seems as though rates have begun to stabilize in Quebec. The TFR for birth orders three, four and five appears either to be levelling off or to be inching upwards.* For now, this cannot be attributed to the Quebec government's pronatalist measures, given that the same trend is manifest elsewhere. The fact remains that, based on Statistics Canada figures, the TFR for all birth orders in Quebec decreased to a 1987 level of 1,426 children per 1,000 women, the lowest ever, due to the contribution of substantial decreases in birth orders one and two. *Preliminary data for 1988 show a recovery.*

THE FERTILITY OF NEW CANADIANS

To the question of whether Canada's fertility slump is partly due to low fertility in Quebec, could be added a tentative explanation that the percentage of foreign-born women who reside in that province is small. A postulate of higher fertility among new Canadians is implied. *In other words, if the fertility rate of Canada without Quebec is such as it is, the reason could be two-fold: the fertility rate for immigrant women is higher than that for Canadian-born women and a greater percentage of immigrant women live outside of Quebec.* A population's fertility rate is the weighted average of the

Table 24. Age-Specific Fertility and Total Fertility Rate by Birth Order, Quebec and the Rest of Canada¹, based on Intercensal Estimates, 1981-1987

Birth order	Year	15-19		20-24		25-29		30-34		35-39		40-44		Total Fertility Rate	
		Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada
1	1981	13.1	25.6	57.4	56.1	55.4	49.2	16.5	17.3	8.5	8.7	0.5	0.5	732.3	761.8
	1982	13.2	25.8	54.8	56.4	50.8	49.9	15.9	18.4	3.6	4.0	0.5	0.5	693.6	775.2
	1983	12.8	24.2	53.8	55.1	51.6	51.0	16.4	19.9	3.8	4.7	0.5	0.5	694.0	776.5
	1984	12.7	22.0	51.0	51.6	51.7	51.4	16.4	21.6	4.0	4.9	0.5	0.6	681.2	760.0
	1985	12.8	22.4	49.4	50.3	52.0	51.3	17.3	21.5	4.0	4.8	0.5	0.6	679.6	754.1
	1986	13.2	21.8	49.6	69.3	51.7	50.5	18.1	21.3	4.5	5.1	0.5	0.7	687.5	743.3
	1987	13.5	20.9	46.5	46.8	51.3	49.7	18.2	21.5	4.2	5.4	0.5	0.7	671.4	725.0
2	1981	1.7	4.6	25.1	33.2	54.1	48.5	28.1	25.7	6.2	5.9	0.6	0.6	578.8	592.8
	1982	1.6	4.6	23.6	32.6	50.5	46.0	26.1	26.9	5.8	6.3	0.6	0.7	541.8	594.9
	1983	1.6	4.5	22.9	31.9	49.2	48.3	25.5	28.2	5.4	6.8	0.6	0.8	525.6	602.3
	1984	1.6	4.0	22.6	30.2	50.5	48.1	27.2	29.0	5.8	7.4	0.6	0.7	541.5	597.4
	1985	1.7	4.2	21.6	30.4	49.1	49.8	26.8	30.8	5.8	7.8	0.5	0.8	527.9	619.5
	1986	1.7	4.0	19.8	29.2	47.8	49.6	26.0	31.8	5.8	8.3	0.7	0.8	508.9	618.8
	1987	2.1	4.2	20.5	27.7	45.3	48.8	25.5	32.2	5.9	8.8	0.7	1.0	500.0	613.3
3	1981	0.2	0.5	4.6	8.9	17.7	20.3	16.9	16.1	4.6	4.9	0.6	0.7	222.8	256.3
	1982	0.1	0.5	4.5	8.9	16.2	20.5	14.9	16.5	4.6	5.4	0.6	0.6	204.5	261.7
	1983	0.1	0.5	4.1	8.6	15.1	20.3	14.3	16.8	4.1	5.5	0.5	0.6	191.3	261.4
	1984	0.1	0.4	3.9	7.8	14.6	19.5	14.1	17.2	4.4	5.6	0.6	0.7	188.4	255.8
	1985	0.2	0.5	3.8	8.3	14.3	20.3	13.6	17.9	4.3	5.9	0.5	0.7	183.1	267.9
	1986	0.2	0.5	3.6	8.0	13.6	20.1	12.7	18.3	4.4	6.1	0.6	0.8	174.7	268.0
	1987	0.2	0.5	4.3	8.0	14.0	19.8	12.6	18.4	4.0	6.5	0.6	0.8	178.9	269.7

Table 24. Age-Specific Fertility and Total Fertility Rate by Birth Order, Quebec and the Rest of Canada¹, based on Intercensal Estimates, 1981-1987 - Concluded

Birth order	Year	15-19		20-24		25-29		30-34		35-39		40-44		Total Fertility Rate	
		Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada
4	1981	-	0.1	0.6	1.7	3.0	5.5	4.6	5.8	2.3	2.7	0.4	0.5	54.1	80.7
	1982	-	-	0.6	1.7	3.0	5.5	4.3	6.0	2.2	2.8	0.4	0.5	52.3	82.4
	1983	-	-	0.6	1.6	2.9	5.4	4.0	6.0	2.0	2.8	0.3	0.5	48.8	81.4
	1984	-	-	0.5	1.5	2.7	5.4	3.7	5.9	1.8	2.8	0.3	0.5	45.5	80.2
	1985	-	-	0.5	1.5	2.5	5.5	3.6	6.2	1.9	2.9	0.3	0.6	43.9	83.2
	1986	-	-	0.5	1.6	2.5	5.4	3.4	6.2	1.7	2.9	0.4	0.5	42.7	83.0
	1987	-	-	0.8	1.8	3.1	5.6	4.1	6.2	1.9	3.0	0.4	0.5	51.6	85.7
5 and over	1981	-	-	0.1	0.4	0.8	1.9	1.6	3.2	1.6	2.6	0.6	0.9	23.0	45.3
	1982	-	-	0.1	0.4	0.8	2.9	1.4	3.1	1.4	2.6	0.5	0.9	20.1	44.9
	1983	-	-	0.1	0.4	0.7	1.9	1.4	3.1	1.2	2.3	0.5	0.8	19.9	42.3
	1984	-	-	0.1	0.3	0.7	1.7	1.4	2.8	1.2	2.2	0.4	0.7	18.8	38.0
	1985	-	-	0.1	0.4	0.7	1.9	1.2	3.0	1.0	2.1	0.3	0.7	16.6	40.9
	1986	-	-	0.1	0.4	0.7	1.9	1.3	3.0	1.1	2.1	0.4	0.7	17.9	40.0
	1987	-	0.3	0.2	0.6	1.2	2.3	1.7	3.3	1.3	2.3	0.4	0.7	24.1	47.3
All birth orders	1981	15.0	31.8	87.8	100.2	131.1	125.3	67.7	68.1	18.1	19.8	2.7	3.3	1611.0	1736.9
	1982	14.9	30.9	83.6	99.9	121.3	125.7	62.5	70.9	17.6	21.0	2.6	3.2	1513.1	1759.0
	1983	14.5	29.2	81.4	97.5	119.5	127.0	61.6	74.1	16.5	22.1	2.5	3.1	1479.5	1763.9
	1984	14.4	26.4	78.1	91.4	120.2	126.1	62.8	76.4	17.1	22.9	2.5	3.1	1475.3	1731.5
	1985	14.7	27.1	75.3	90.9	118.6	128.9	62.5	79.4	17.0	23.5	2.2	3.4	1451.1	1765.6
	1986	15.1	26.3	73.6	88.6	116.3	127.5	61.6	80.6	17.4	24.4	2.5	3.4	1431.8	1754.0
	1987	15.8	25.9	72.3	84.9	114.8	126.1	62.2	81.5	17.3	26.0	2.6	3.6	1426.1	1741.0

fertility rates of the various subpopulations that compose it. Subpopulations defined by one or more criteria can have peculiar fertility rates whether for identifiable reasons or through chance. Indeed, different fertility levels by religion, ethnic origin, mother tongue, occupation⁹, and so forth have already been observed for subpopulations in Canada. The hypothesis for new Canadians remains to be verified.

Two sources of information are at our disposal for this analysis: the census (unfortunately, the most recent census to provide data in this area is 1981); and annual vital statistics. The census provides information on cumulative and completed fertility among surviving women in cohorts, which can then be classified according to whether or not they were born in Canada. This points toward longitudinal analysis. The second source, vital statistics, permits calculation and comparison of current fertility levels for Canadian-born and immigrant women. Together, these two sources shed light on the subject.

Initial Remarks

If calculations are easy, the interpretation of results is not, and it is necessary to be prudent with conclusions. Foreign-born women who responded to the 1981 Census question on the number of children ever born are not exclusively recently-arrived adult immigrants; a number of these women immigrated as children, and some were more or less raised in the Canadian culture. Second, some came from countries highly dissimilar in fertility behaviour.

To counter the first pitfall, we can measure the fertility of foreign-born women for ages when they arrived in Canada, and in this way, isolate women who arrived as adults, or at least by age 15. But insofar as the analysis is aimed at the contribution of immigrant women to national fertility, criticism is only partially avoided, because women (only those who ever married) had to list all the children they had ever borne. Some women, especially those who arrived at a relatively advanced age, bore some or all of their children abroad.

The second objection could be partially resolved by breaking out country of origin, albeit for an already small immigrant subpopulation. Waves of immigration, however imprecise, would have to be linked to their origins according to fertility levels. These regroupings could then form a basis for analysis.

If current fertility rates are calculated with vital statistics, then the preceeding criticism is avoided. These annual statistics, however, leave us with only an uncertain indication because completed or real fertility (children ever born among women who have reached the end of their reproductive period) is only

⁹ Jacques Henripin, *Tendances générales de la fécondité au Canada*, Ottawa, Federal Statistics Bureau, 1968.

remotely linked to current rates. These rates are calculated year after year over the course of the fertile life of women, but women are never the same in the fictitious cohort.

Cohorts Who Have Completed Fertility

Table 25 furnishes the first series on new Canadians who are past their fertile years. Their fertility, like that of Canadian-born women,¹⁰ is higher the earlier their marriage, and lower for the most recent cohorts. But all the foreign-born cohorts under study have a lower completed fertility (by an average of 17%) than do Canadian-born women. This is probably because the women in these cohorts frequently came from European countries at a point when the fertility rate in their country of origin was lower than that in Canada. These women contributed less to the baby boom. If there is a similarity between the completed fertility of the foreign-born and Canadian-born 1943 cohorts, it is because Canadian-born women of this cohort produced fewer children than their elders. Completed fertility for the 1943 Canadian-born cohort (23 years old in 1966) is 32 per cent less than that for the 1928 birth cohort (23 years old in 1951), whereas the difference is only 20 per cent less for the same foreign-born cohorts (Table 25).

Table 25. Children Ever Born per 1,000 Women¹, Canadian-born and Foreign-born Cohorts, Canada, 1981

Cohort	Age in 1981	Foreign-born women						Children ever born to Canadian-born women	Difference in %
		Age at marriage							
		18	21	25	27	30	All ages		
1913	68	3,809	3,101	2,458	2,246	2,051	2,769	3,224	-14
1916	65	3,791	3,291	2,722	2,599	2,149	2,852	3,237	-12
1919	62	3,861	2,891	2,759	2,630	2,561	2,909	3,392	-14
1922	59	3,665	3,101	2,591	2,472	2,046	2,841	3,563	-20
1925	56	3,649	3,649	2,608	2,416	2,022	2,923	3,571	-18
1928	53	3,589	3,131	2,667	2,401	2,001	2,865	3,614	-21
1931	50	3,511	3,025	2,597	2,368	2,415	2,841	3,514	-19
1934	47	3,299	3,040	2,665	2,389	1,764	2,746	3,438	-20
1937	44	3,003	2,764	2,440	2,212	1,769	2,665	3,156	-16
1940	41	3,108	2,645	2,186	2,029	1,990	2,497	2,833	-12
1943	38	2,785	2,380	2,105	2,152	1,838	2,299	2,468	-7

¹ Can be considered completed fertility, since births to women over 38 are rare.

Source: 1981 Census, unpublished data.

¹⁰ See 1986 report.

Cohorts Who Have Not Completed Fertility

Table 26 shows cumulative fertility: the number of children ever born per 1,000 women as of the 1981 census date. One can invoke different childbearing tempos for the Canadian-born and foreign-born subpopulations, and speculate that the difference could close by the end of their fertile life. For the moment, the gap remains narrow enough after 20 years, under 10 per cent, with immigrant women being less fertile (except for the 1957 to 1960 generations). This means either that immigrant women really are less fertile, or that their fertility comes later.

Given that a percentage of foreign-born women immigrated to Canada as children, their adaptation to the Canadian culture could have resulted in fertility behaviour closer to Canadian-born women than to foreign-born women who immigrated as adults (by age 15).¹¹ Table 27 confirms this hypothesis.

Table 26. Children Ever Born per 1,000 Women, Foreign-born and Canadian-born Cohorts, Canada, 1981

Cohort	Age in 1981	Children ever born to:		Difference
		Foreign-born women	Canadian-born women	
1944	37	2,243	2,351	-108
1945	36	2,190	2,279	-89
1946	35	2,092	2,161	-69
1947	34	2,010	2,073	-63
1948	33	1,958	1,993	-35
1949	32	1,842	1,913	-71
1950	31	1,762	1,831	-69
1951	30	1,625	1,710	-85
1952	29	1,548	1,589	-41
1953	28	1,410	1,458	-48
1954	27	1,278	1,318	-40
1955	26	1,127	1,195	-68
1956	25	1,032	1,057	-25
1957	24	938	904	34
1958	23	817	783	34
1959	22	729	699	30
1960	21	662	612	50
1961	20	536	548	-12
1962	19	417	541	-124
1963	18	367	536	-169

Source: 1981 Census, unpublished data.

¹¹ The diversity in fertility rates in the countries of origin may also play a part.

Table 27. Children Ever Born per 1,000 women, Canadian-born and Foreign-born Cohorts by Age at Immigration, Canada, 1981

Cohort	Age in 1981	Foreign-born women:		Women born in Canada
		Who immigrated under age 15	Who immigrated at 15 or older	
1913	68	2,668	2,813	3,224
1916	65	2,855	2,851	3,237
1919	62	2,851	2,932	3,392
1922	59	2,988	2,807	3,563
1925	56	3,143	2,880	3,571
1928	55	3,236	2,809	3,614
1931	50	3,408	2,812	3,514
1934	47	3,033	2,733	3,438
1937	44	2,952	2,641	3,156
1940	41	2,767	2,456	2,833
1943	28	2,425	2,266	2,468

Source: 1981 Census, unpublished data.

Cumulative fertility for women born in the 1920s and who immigrated as children is situated between women who immigrated as adults and Canadian-born women (and is often closer to Canadian-born women).

The Cross-Sectional View

In 1981 as in 1986, the total fertility rate (TFR) for foreign-born women was higher than that for Canadian-born women.¹² In these statistics, all births occurred in Canada. But there are still the diverse points of arrival from infancy to maturity, and all of the uncertainty surrounding the real fertility calendar. A clearly substantial percentage of young adults arrived from South America, Asia, and other continents with very different fertility schedules from those of the earlier immigrants. Fertility in these regions is, on average, higher than in Europe from where the “earlier” immigrants came (Table 28). The highest rate in 1986 was for women born in Africa (2.5), but is based on less than 3,000 births. The rate for Asian women (15,000 births) reached the replacement threshold of 2.1 children per woman. Curiously, the fertility rate for women born in the United States, based on 5,000 births, ranked third. The difference in fertility between the foreign-born group as a whole and the Canadian-born group is not negligible, but is low (0.3 children per woman). For both 1981 and 1986, these rates were below the cohort replacement threshold. Furthermore, the fact that the 1986 rates for foreign-born and Canadian-born women were somewhat closer than the 1981 rates implies that

¹² Calculations were done by Anne Gauthier, “Quand les différences sont négligées”. Presentation to the Third International Seminar of the Association Internationale des Démographes de Langue Française, Montréal, 1988.

differences, if they are real, will probably decrease. The fictitious 1981 cohort includes a number of women whose known cumulative fertility (see above) to date is lower than that of Canadian-born women, with the possible exception of only four cohorts.

Although a difference in fertility between immigrant and Canadian-born women cannot be discounted, it is certainly very low if it exists at all. Any effect of higher immigrant fertility on the birth rate is minimal in any case because of the numerical weight of the two subpopulations. The ratio of immigrant women to Canadian-born women is one to five, and is one to eight if European women are excluded. Finally, separate calculations on Quebec and the rest of Canada show that the fertility of Canadian-born women is quite a bit lower in Quebec (1.38 compared with 1.57), whereas that of foreign-born women is the same, if not higher, in Quebec (1.96 compared with 1.92).

THE LIFE TABLE FOR 1986

The level of mortality in a given population at a given period is usually measured with the values provided by the current life table. The various indicators (life expectancy and probabilities of survival) in the table are ultimately based on age-specific rates. Just as care is taken to reduce the impact of random fluctuations in events that constitute the numerator of the rate (the average of three consecutive years for each age is used), so too the quality of the denominator must be carefully considered.¹³ Underestimates of the population at each age in the 1986 Census slightly inflate the rates, so to provide a truer picture of the situation, the logical step would be to correct the denominators for the underestimation before doing the calculations. But this difficult operation is often subject to criticism, and was dismissed here in order to avoid debate. Statistics Canada life tables for Canada and the provinces were, then, prepared with unadjusted census data (Table 29). As shown in Table A5 in the Appendix, adjustments to the table do not affect key values in any significant way.

A comparison of the 1981 and 1986 life tables shows the major changes that have happened in the past five years. Life expectancy for males rose from 71.87 to 73.04 years. This gain of 1.17 years is almost of the same magnitude (1.62 years) as that which was recorded for the previous five-year period (1976-1981). Both are remarkable when seen against previous slow rises in life expectancy (by .86 years between 1971 and 1976; .67 years between 1966 and 1971; and .29 years between 1961 and 1966).

¹³ Even though an absolute error of the same value would have a much smaller impact.

Table 28. Fertility Rate (per 1,000) by Age Group and Mother's Place of Birth, Canada, 1981 and 1986

Place of birth	Age Group of Mother							Total Fertility Rate (TFR)
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
1981								
All mothers ^{1 2}	2.56	9.63	12.75	6.80	1.93	0.32	0.02	1.7
Mothers born in Canada ³	2.55	9.38	12.36	6.23	1.56	0.24	0.01	1.6
Mothers born outside of Canada	2.50	11.48	14.64	8.79	3.14	0.55	0.03	2.0
Europe	2.17	10.39	12.62	6.94	2.24	0.39	0.02	1.7
Asia	2.22	12.78	17.89	12.18	4.86	0.98	0.10	2.5
Africa	1.31	9.08	18.41	12.45	4.92	0.86	0.03	2.3
United States	2.77	12.17	14.82	9.54	3.78	0.62	0.03	2.1
Central and South America	4.10	12.96	15.53	10.76	5.36	1.13	0.07	2.4
Oceania	0.88	4.66	8.91	7.61	3.68	0.44	0.00	1.3
1986								
All mothers	2.20	8.26	12.38	7.43	2.24	0.32	0.01	1.6
Mothers born in Canada	2.21	8.10	12.02	7.00	1.90	0.24	0.01	1.5
Mothers born outside of Canada	1.97	9.03	14.30	9.30	3.34	0.58	0.02	1.9
Europe	1.60	7.86	12.59	7.61	2.44	0.40	0.02	1.6
Asia	1.24	9.76	15.95	10.98	4.39	0.80	0.02	2.1
Africa	1.56	9.27	20.13	12.75	5.40	1.00	0.00	2.5
United States	2.46	9.56	14.51	10.43	4.27	0.83	0.08	2.1
Central and South America	3.60	10.96	14.78	10.40	4.56	1.06	0.07	2.2
Oceania	0.80	3.21	6.27	7.77	3.22	0.30	0.00	1.0

¹ The female population in this calculation does not include women in collective households.

² Fertility rates for all mothers include newborns for whom the birthplace was unknown. However, such births are not included in the calculation of rates by birthplace.

³ Calculated on the basis of 8 provinces (Newfoundland and Manitoba excluded).

Source: See appendix.

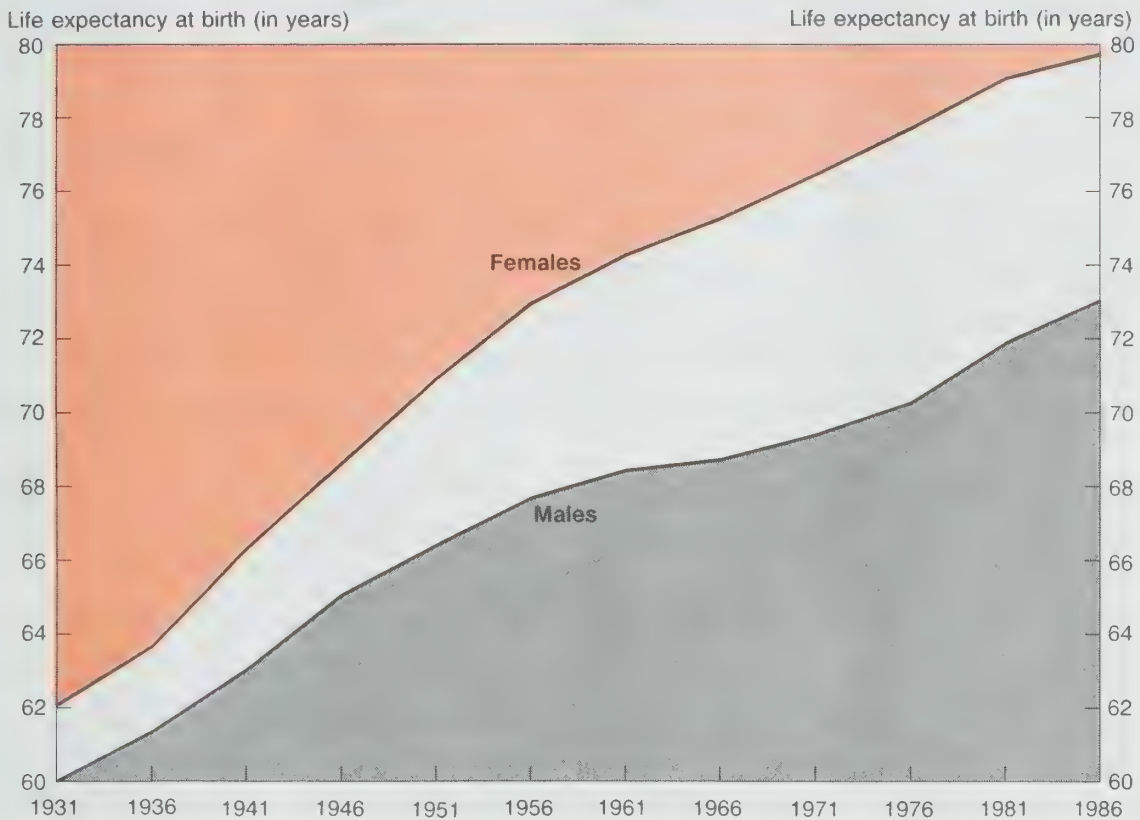
Table 29. Contracted Life Table, Canada, 1985-1987 (unadjusted)

Age Group	l_x	P_x	q_x	d_x	L_x	T_x	e_x
Male							
0-1	100,000	.99142	.00858	858	99,253	7,304,280	73.04
1-4	99,142	.99806	.00194	192	396,129	7,205,027	72.67
5-9	98,950	.99896	.00104	103	494,457	6,888,898	68.81
10-14	98,847	.99831	.00162	160	493,929	6,314,441	63.88
15-19	98,687	.99492	.00508	501	492,304	5,820,512	58.98
20-24	98,186	.99323	.00677	665	489,279	5,328,208	54.27
25-29	97,521	.99358	.00642	626	486,031	4,838,929	49.62
30-34	96,895	.99323	.00677	656	482,860	4,352,898	44.92
35-39	96,239	.99199	.00801	771	479,354	3,870,038	40.21
40-44	95,468	.98814	.01186	1,132	474,710	3,390,684	35.52
45-49	94,336	.98069	.01931	1,822	467,500	2,915,974	30.91
50-54	92,514	.96699	.03301	3,054	455,550	2,448,474	26.47
55-59	89,460	.94536	.05464	4,888	435,922	1,992,924	22.28
60-64	84,572	.91379	.08621	7,291	405,755	1,557,002	18.41
65-69	77,281	.86578	.13422	10,373	361,776	1,151,247	14.90
70-74	66,908	.79807	.20193	13,511	301,966	789,471	11.80
75-79	53,397	.70354	.29646	15,830	227,979	487,505	9.13
80-84	37,567	.58104	.41896	15,739	147,811	259,526	6.91
85-89	21,898	.43476	.56524	12,338	76,326	111,715	5.12
90-94	9,490	.29463	.70537	6,694	28,254	35,389	3.73
95-99	2,796	.09227	.90773	2,538	6,934	7,135	2.55
100	258	.00000	1.00000	258	201	201	0.78
Female							
0-1	100,000	.99322	.00678	678	99,415	7,972,923	79.73
1-4	99,322	.99841	.00159	158	396,899	7,873,508	79.27
5-9	99,164	.99916	.00084	83	495,591	7,476,608	75.40
10-14	99,081	.99904	.00096	95	495,197	6,981,018	70.46
15-19	98,986	.99804	.00196	194	494,471	6,485,821	65.52
20-24	98,792	.99796	.00204	202	493,453	5,991,350	60.65
25-29	98,590	.99779	.00221	218	492,420	5,497,897	55.77
30-34	98,372	.99310	.00290	285	491,182	5,005,477	50.88
35-39	98,087	.99586	.00414	406	489,497	4,514,295	46.02
40-44	97,681	.99298	.00702	686	486,835	4,024,798	41.20
45-49	96,995	.98834	.01166	1,131	482,369	3,537,963	36.48
50-54	95,864	.98125	.01875	1,797	475,137	3,055,594	31.87
55-59	94,067	.97116	.02884	2,713	463,995	2,580,457	27.43
60-64	91,354	.95549	.04451	4,066	447,266	2,116,462	23.17
65-69	87,288	.93061	.06939	6,057	422,256	1,669,196	19.12
70-74	81,231	.89008	.10992	8,929	385,235	1,246,940	15.35
75-79	72,302	.82196	.17804	12,873	331,047	861,705	11.92
80-84	59,429	.71642	.28358	16,853	256,424	530,658	8.93
85-89	42,576	.56447	.43553	18,543	166,304	274,234	6.44
90-94	24,033	.39729	.60271	14,485	80,617	107,930	4.49
95-99	9,548	.12589	.87411	8,346	26,354	27,313	2.86
100	1,202	.00000	1.00000	1,202	959	959	0.80

Source: Statistics Canada, Health Division, Vital Statistics.

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Figure IV
Changes in Life Expectancy at Birth for Men and Women,
Canada, 1931-1986



Source: Table A6 in Appendix.

Life expectancy at birth has been established at 79.73 years for females. The 0.67 year gain over the 1981 value is smaller than that for males. If we consider that in the previous period (1976-1981) the female gain (1.36 years) was already less than the male gain (1.62), the trend of a slower pace for females seems clear and could continue (Chart IV). Support for this hypothesis has already been provided at some length in the 1983 and 1986 Reports. Recent observations only confirm the forecasts of the 1970s. The gap between male and female life expectancy, which amounted to 7.44 years in 1976, dropped to 6.69 years in 1986 (Table A6 in Appendix).

Survival probabilities have risen for all ages among both males and females over the course of the last years, but Table 30 clearly shows that:

- (1) gains were markedly higher for both sexes at the more advanced ages;
- (2) gains were more substantial at young ages for males than for females; and
- (3) gains for males in the 15-24 age groups were much higher than in the neighbouring 10-14 and 25-29 age groups.

Table 30. Increase in the Probability of Survival (aPx), Canada - 1976-1986

Age group	Male		Female	
	1981-1986 Differences	Increase per 1,000	1981-1986 Differences	Increase per 1,000
0-1	.00554	5.62	.00460	4.65
1-4	.00122	1.22	.00090	0.90
5-9	.00128	1.28	.00070	0.70
10-14	.00053	0.53	.00038	0.38
15-19	.00246	2.48	.00066	0.66
20-24	.00253	2.55	.00065	0.65
25-29	.00096	0.97	.00049	0.49
30-34	.00101	1.02	.00094	0.94
35-39	.00268	2.71	.00175	1.76
40-44	.00695	7.07	.00212	2.14
45-49	.00803	8.26	.00352	3.57
50-54	.01092	11.42	.00302	3.09
55-59	.01464	15.73	.00501	5.19
60-64	.01905	21.29	.00672	7.08
65-69	.02145	25.40	.01066	11.59
70-74	.02621	33.96	.01666	19.07
75-79	.02695	39.83	.02300	28.79
80-84	.03181	57.92	.03871	57.12
85-89	.03368	83.97	.05182	99.58
Probability of Survival (per 1,000)				
		Male	Female	
40P ¹	1976	937	951	
	1986	955	977	
	Increase	1.9%	1.2%	
25P40 ²	1976	762	875	
	1986	810	894	
	Increase	6.3%	2.2%	
20P65 ³	1976	242	435	
	1986	282	488	
	Increase	16.5%	12.2%	

¹ From age 0 to age 40.

² 25 years past age 40.

³ 20 years past age 65.

Over the course of the ten-year period (1976 to 1986), probabilities of survival from birth to 40 years of age increased by 1.9 per cent for males and by 1.2 per cent for females. From 65 to 85 years, the chances of survival rose by 16.5 per cent for males and by 12.2 per cent for females. In the second

half of adult life (from 40 to 65 years), the probability of survival increased by 6.3 per cent for males, and by only 2.2 per cent for females. It still remains, however, that if a man and a woman celebrate their 65th birthday, according to the 1986 life tables, the woman has 49 chances in 100 of celebrating her 85th, whereas a man has only 28.

In the Provinces

Since information has been available (1921), a narrowing of provincial differences in life expectancy at birth has been observed, both for males and for females (Table 31). Despite this growing uniformity in mortality, Saskatchewan and Prince Edward Island have almost always known the highest life expectancies. Both provinces are rural and sparsely populated.

Males gained one year of life expectancy between 1981 and 1986 in the majority of the provinces. Four provinces showed weaker gains: Quebec (.95 years); Manitoba (.86 years); Newfoundland (.44 years) and Prince Edward Island (a loss of .20 years). As of 1986, Quebec is once again last in male life expectancy, a position it held until 1976 and then lost in 1981. The only province to record a one-year gain in life expectancy for females was New Brunswick. Newfoundland (which ranked last) and Prince Edward Island had the smallest female gains of all the provinces.

Male Excess Mortality

The sex differential in mortality (the male mortality rate over the female rate) in Canada and throughout the Western World has been altered considerably in the past 60 years. Mortality rates, or death probabilities in successive age groups of males and females, decreased on the whole over this period, but at very different rhythms. The result was fairly considerable gaps in the differential at all ages.

A ratio exceeding unity indicates male excess mortality. The 1921 curve shows female excess mortality between ages 20 and 44 years (the ratio is less than one) that lasted until 1936 (see Table A7 Appendix). This excess was largely due to death during childbirth, as well as to a high risk of tuberculosis mortality, especially among women whose bodies were weakened from successive pregnancies. With the arrival of antibiotics, female excess mortality disappeared, and the male excess has since continued to increase in all age groups.

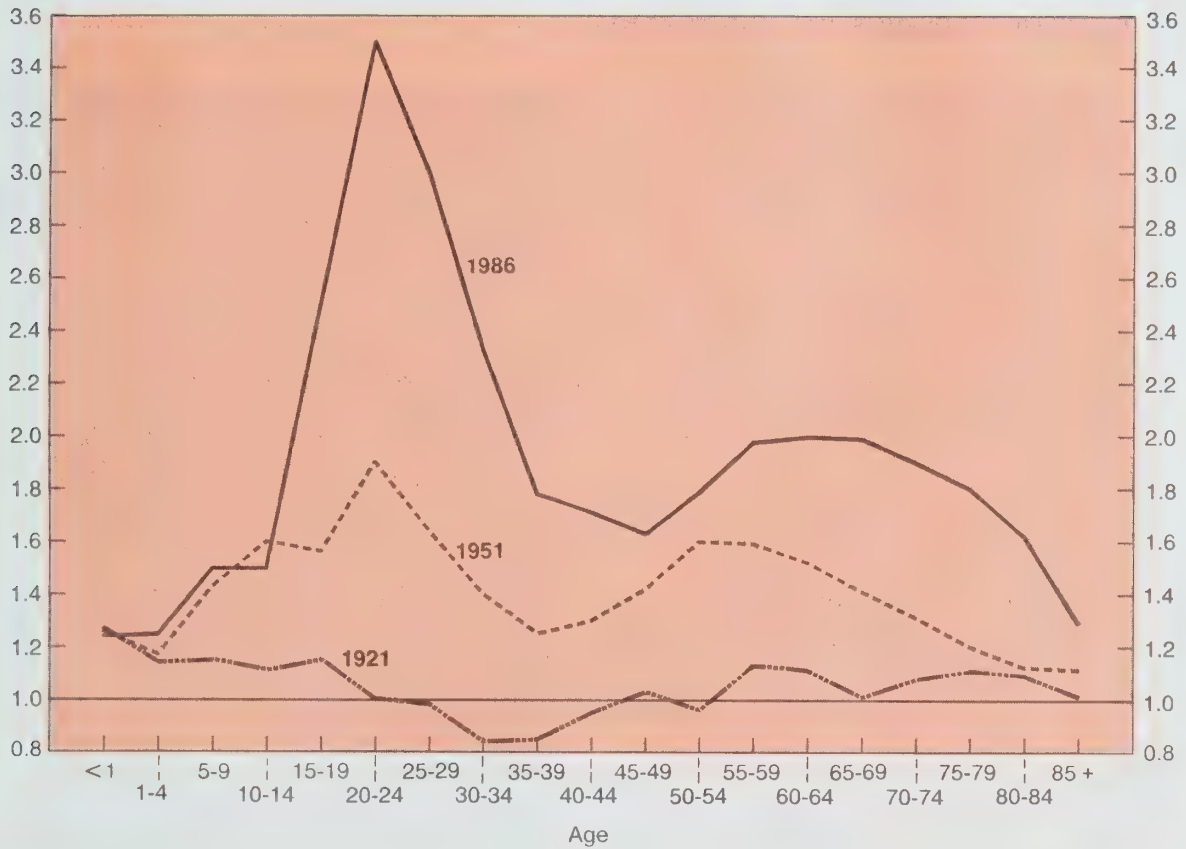
The 1951 curve has two peaks. The first peak is unquestionably engendered by traffic accident increases, since it coincides with the increased use of the automobile. The second peak culminates around age 50, and results from chronic diseases associated with work environments and more harmful lifestyles (smoking, drinking, etc.). While males began to adopt these habits at the turn

Table 31. Life Expectancy at Birth by Sex, Provinces, 1921-1986

Provinces	1921	1926	1931	1936	1941	1946	1951	1956	1961	1966	1971	1976	1981	1986
Male														
Newfoundland	59.15	63.86	63.62	63.56	64.77	68.23	66.51	67.42	69.04	68.85	69.38	70.82	71.98	72.69
Prince Edward Island	58.17	59.37	60.13	61.79	61.75	65.76	69.69	69.15	68.77	68.17	69.08	69.20	72.81	72.57
Nova Scotia	55.22	57.84	59.39	59.35	61.23	64.12	65.94	68.47	68.47	68.40	68.63	69.56	70.91	72.24
New Brunswick		53.05	56.17	58.17	60.36	62.97	64.53	67.73	68.62	68.52	69.17	69.53	71.00	72.51
Quebec	58.32	60.13	61.21	63.00	64.56	66.17	66.85	67.83	67.36	67.80	68.30	69.04	71.03	71.95
Ontario	59.80	60.89	62.93	63.15	64.55	65.76	68.03	68.64	68.33	68.68	69.60	70.59	72.25	73.47
Manitoba	62.03	62.45	64.20	64.64	66.46	67.14	69.00	70.21	70.60	70.35	70.83	71.17	72.42	73.65
Saskatchewan	58.83	60.28	62.88	62.92	64.94	66.41	68.03	68.94	69.57	70.10	70.44	71.04	71.98	73.51
Alberta	60.28	60.17	62.00	62.26	63.53	65.07	66.74	68.02	68.08	69.06	69.85	70.88	72.56	73.96
British Columbia														
Gap		10.81	8.03	6.47	6.10	5.26	5.14	2.95	3.24	2.55	2.53	2.13	1.90	2.07
Female														
Newfoundland	61.12	64.77	64.50	65.86	66.42	69.74	69.24	71.24	72.82	74.61	75.66	77.43	78.66	79.09
Prince Edward Island	60.16	61.07	62.03	64.28	65.32	69.33	72.69	74.98	84.62	75.17	77.55	78.24	80.48	80.35
Nova Scotia	56.38	58.51	60.82	61.31	63.23	67.14	71.70	73.74	74.21	74.83	76.24	77.38	78.48	79.37
New Brunswick		54.45	57.72	60.29	63.17	66.12	69.84	72.78	73.83	85.22	76.36	77.43	79.01	79.91
Quebec	60.15	62.38	63.81	65.62	68.40	70.18	71.88	73.53	77.88	73.96	75.24	76.76	78.76	79.67
Ontario	61.07	62.77	65.24	64.96	67.34	68.75	72.09	73.76	74.45	75.55	76.79	77.85	79.07	79.78
Manitoba	62.64	63.66	65.88	66.81	68.87	70.13	72.58	74.44	75.32	76.07	76.98	78.04	78.84	79.78
Saskatchewan	60.82	61.75	64.77	65.17	68.02	69.49	72.08	74.38	76.20	76.81	77.82	78.57	79.82	80.37
Alberta	64.18	63.93	65.39	65.20	68.87	69.95	72.25	74.01	75.55	76.23	77.38	78.24	79.09	80.03
British Columbia									75.40	75.89	76.91	78.31	79.61	80.40
Gap		10.32	8.16	6.52	5.70	4.06	3.99	3.91	1.80	2.85	2.58	1.81	2.00	1.35

Note: We might be surprised that at all ages and for both sexes rates for 1921 are inferior to those of 1926, given that Canada's mortality rate did not increase between these two dates. The reason is that the 1921 national rate did not include Quebec, whereas it did in 1926, and Quebec's 1926 mortality rate was high enough to push up the national rates.

Figure V
The Sex Differential in Mortality, All Causes of Death,
Canada, 1921, 1951 and 1986



Source: Table A7 in Appendix.

of the century, mores protected women from them for some time, and women also benefited from the progress in medicine.

The 1986 curve shows that the 1951 schematic view has not changed, but the values have amplified. Between 20 and 24 years of age, a male has about a three-and-a-half times higher probability of dying than does a female, even if his chances are 40 per cent less than they were in 1921. The convexity in the curve for young seniors (60-70 years old) has displaced itself further to the right as a result of stronger relative decreases in female mortality at these ages. For example, the female mortality rate for the 65-69 age group has fallen by 43 per cent since 1951, compared with a 19 per cent drop in the male rate.

Mortality and Aging

The principal force behind population aging, and the first to manifest itself, is the reduction in fertility. It has been the object of numerous studies¹⁴, each

¹⁴ See, for example, United Nations, *The Aging of Populations and Its Economics and Social Implications*, Population Studies No. 26, New York, 1956.

of which has turned on this point. The second factor in aging, mortality decline, is more complex because it manifests itself in two phases. This force is thought to be well understood, but often is not. How does it work? The following paragraphs deal with a few of the more marked aspects of the contemporary evolution in Canada's mortality rate.

The continuum of human life can be divided, for the purposes of analysis, into segments easily identified by the leading causes of death:

- from birth to age one: infant mortality (today mostly neonatal and endogenous);
- from ages 1 to 15: childhood mortality;
- from ages 15 to 30: accidental death of youth and young adults;
- from ages 31 to 64: mostly adult cardiovascular accidents;
- from ages 65 to 80: degenerative or chronic disease: cancer, heart failure, etc.;
- over 80: death from very old age (multiple and ill-defined causes).

Curves that trace the evolution of survival probabilities over any given period (Chart VI) from the beginning of an age group to its end tell the story of change in the incidence of mortality for specific life segments.

Males

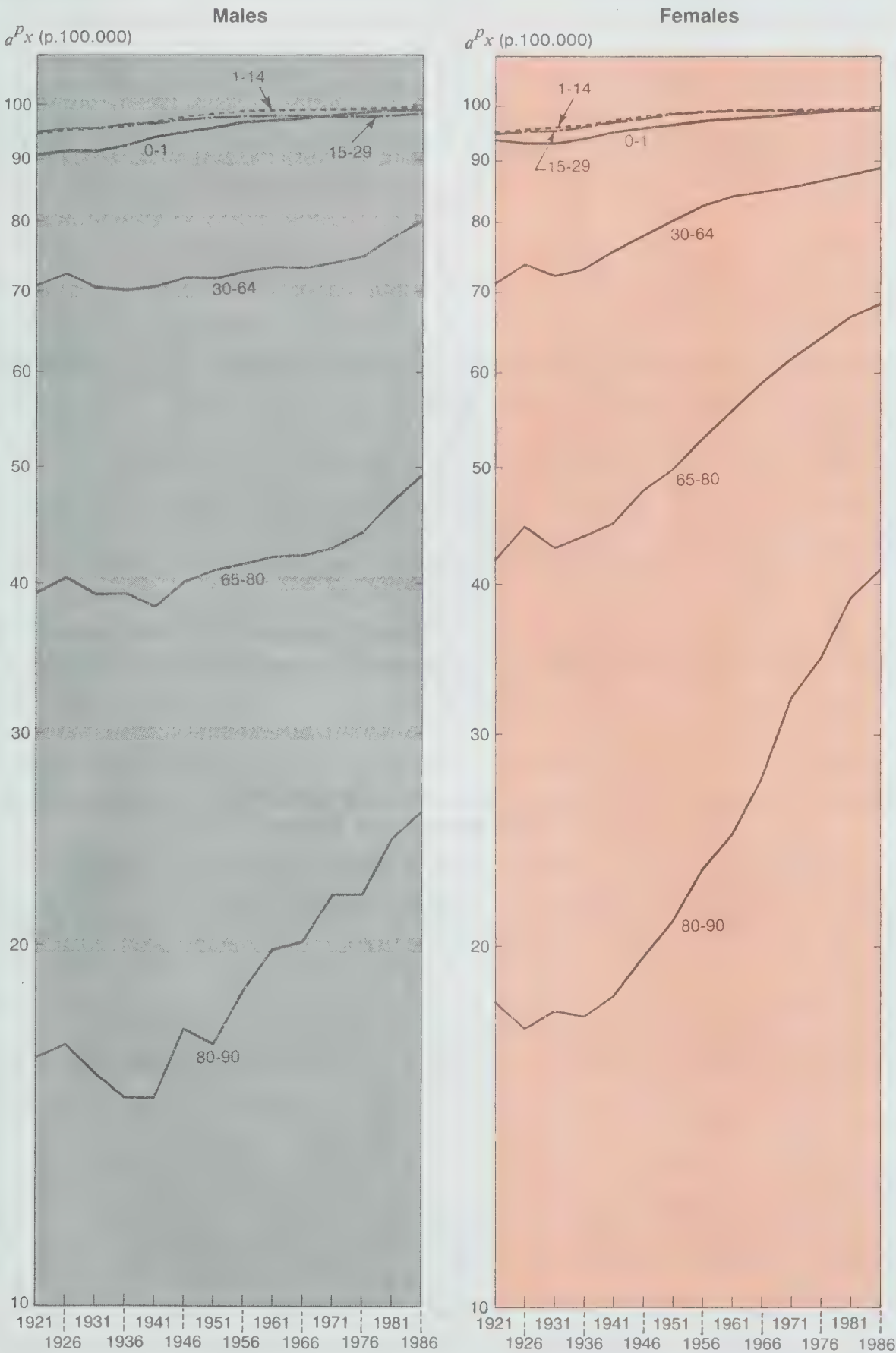
The slopes of the curves for the first three age groups (0 to 1, 1 to 14, and 15 to 29) rise fairly steadily, and reach a peak (barely noticable on the chart) around 1956. A steeper slope before this point reflects the latest major improvements in the reduction of infectious diseases. These advances have brought the probability of death to such low levels that any new decline in rates can only be minimal. A bend at ages 15 to 29 between 1961 and 1976 bears the mark of accidental-death increases. Its disappearance since 1976 points to a decline, at least for now, in this cause of premature death.

The second group of curves cover the second half of life. They show, up to 1941, a deterioration in survival probabilities that corresponds to the slump in the Canadian economy between 1926 and the outbreak of World War II. The slopes record a steady increase between 1941 and 1976, but not as notable as the gains of the last ten years, which mirror something equally as new as it is unexpected. This is the reduction in premature deaths from cardiovascular disorders, which has played a key role in lengthening survival probabilities at all ages (see later discussion).

Females

Comments for men hold true for the first three female age groups, but the second three groups show significant differences. Survival probabilities begin to increase much earlier (1936) and more sharply. The near disappearance of

Figure VI
The Evolution of Survival Probabilities Between Certain Ages,
Canada, 1921-1986



Source: Table A8 in Appendix.

maternal death following the generalized use of antibiotics and the progress in obstetrics, although not the sole reason, has played a major role in female adult (ages 30 to 64) survival. A reduction in the pace of gains after 1961 is also noted for this life segment. But the most spectacular progress is realized at very advanced ages: the probability of living 10 years beyond one's 80th birthday rose from 28 per cent in 1966 to 41 per cent in 1986, or by nearly 50 per cent in 15 years.

This profound change is responsible for the considerable increase of elderly women in the population. Whereas the whole female population grew by 29 per cent over the course of this period, the number of women at very advanced ages grew by 125 per cent. The same does not hold true for males. Their numbers increased by 16 per cent, but the number of males at very advanced ages rose by only 33 per cent.

These figures alone are not enough to build a convincing argument. To measure the effect of change in mortality over the last 20 years, we can compare 1966 population projections of the 80 to 90 age group with the population enumerated in 1986, based on an acceptable hypothesis of zero net migration among the elderly. Projections are based on the 1966 mortality rate, when these individuals were ages 60 to 70. Table 32 shows that there were 24 per cent more males and 30 per cent more females than projected.

However interesting, a comparison of mortality for different years would benefit from the application of a longitudinal perspective. Given that

Table 32. Comparison of Population Enumerated in 1986 With Projections Based on the 1966 Life Table, Elderly Age Groups, Canada

Age group	Population in 1966	Age Group	Population projected for 1986	Population enumerated in 1986	Difference	
					in number	in %
Male						
60-64	330,006	80-84	90,068	115,355	25,287	
65-69	254,938	85-89	41,657	48,520	6,863	
Total	585,004		131,725	163,875	32,150	24.4
Female						
60-64	333,404	80-84	153,966	194,010	40,044	
65-69	276,771	85-89	75,503	103,610	28,107	
Total	610,175		229,469	297,620	68,151	29.7

Source: 1966 and 1986 Census.

mortality declines with time, each of us is involved in a process of transition from birth to death, in which the probability of dying between two birthdays is continually modified. To reconstruct the history of a given period, we can calculate the number of persons surviving to a certain age in an imaginary cohort of 100,000 persons who would have been born at the beginning of the period and who, at each birthday, would have been exposed to a corresponding probability of death at the moment when they reached that age. In comparing this number with the one for fictitious cohorts on the life tables at the two extremes of the period, the lesson is drawn. The figures give a statistical index less weighted down with hypotheses (Table 33).

We can, for example, establish the balance of the male cohort whose members arrived at retirement age (65) in 1986. If their probability of death had been the same as in 1921 throughout their life, then only 57,603 of the 100,000 boys born in that year would still be alive. But since probabilities of survival between two birthdays have not ceased to progress, 77,281 of the 100,000 males born would eventually survive to age 65, based on the 1986 table (Table 29). Only those members of the 1921 cohort still living to a given age benefited from the increase in survival probabilities year after year, the others having died. The result is that for every 100,000 boys born in 1921, 63,893 were still alive at 65 (disregarding any extraneous phenomenon), or 10.8 per cent more than projected from the 1921 table. This cohort in particular benefited from the progress in survival between ages 25 and 45 and between 55 and 65, that is, the increases recorded between 1946 and 1966 and between 1976 and 1986. That the number of individuals alive in 1986 is closer to the 1921 life table than to the 1986 table is an expression of progress in infant and child mortality. Yet this generation still paid a heavy price in deaths in their infancy and early childhood.

The result can also be expressed in terms of life expectancy at birth. If males still alive at age 65 in 1986 were survivors destined to live the number of years granted in the 1986 life table, their life expectancy would have been 63.11 years instead of 58.84, for a difference of 4.27 years, or 7 per cent more. As survival progresses at the advanced ages, it is likely that by the time the 1921 male cohort is extinct (in 2021), its life expectancy will have been longer. A similar calculation gives for the imaginary 1921 female cohort an average life expectancy of 70.5 years.

The difference in life expectancy between males and females based on the 1921 life tables was 1.8 years. This grew to 6.72 years by 1986. But the “cohort” table shows a difference of 7.4 years (Table 33). This result demonstrates that women in this cohort benefited more over the years from the mortality progress at the time than did men. As there were always relatively more females at the beginning of each life segment, more of them benefited from the progress in survival over the course of that segment. Life expectancy gains at 65

Table 33. Survivors of the 1921 Cohort and the 1921 Fictitious Cohort, Showing Life Expectancy at Various Ages, Canada

Age	1921 Cohort		1921 Fictitious Cohort		Interval	Increase in the probability of survival per 100,000
	Survivors	Life expectancy	Survivors	Life expectancy		
Male						
0	100,000	63.11	100,000	58.84	0-4	407
5	88,569	66.00	88,162	61.65	5-9	404
10	87,590	61.71	86,831	57.55	10-14	281
15	86,922	57.17	85,925	53.13	15-19	480
20	86,040	52.73	84,640	48.90	20-24	698
25	85,049	48.31	83,075	44.77	25-29	983
30	84,242	43.75	81,469	40.61	30-34	893
35	83,420	39.16	79,947	36.33	35-39	1,102
40	82,435	34.60	78,122	32.12	40-44	1,066
45	81,026	30.15	75,953	27.96	45-49	788
50	78,743	25.96	73,215	23.91	50-54	361
55	75,206	22.06	69,663	20.00	55-59	1,044
60	70,307	18.42	64,397	16.42	60-64	1,428
65	63,893	15.02	57,603	13.04		
Female						
0	100,000	70.50	100,000	60.60	0-4	246
5	90,514	72.68	90,268	64.33	5-9	365
10	89,695	68.32	89,086	62.05	10-14	263
15	89,069	63.78	88,229	57.84	15-19	499
20	88,323	59.30	87,051	53.38	20-24	936
25	87,512	54.82	85,436	49.07	25-29	1,329
30	86,878	50.21	83,682	44.95	30-34	1,643
35	86,341	45.50	81,790	40.84	35-39	2,010
40	85,723	40.81	79,561	36.72	40-44	1,918
45	84,839	36.21	77,214	32.68	45-49	2,059
50	83,499	31.75	74,405	28.59	50-54	2,655
55	81,587	27.44	70,726	24.58	55-59	3,459
60	78,934	23.28	65,980	20.72	60-64	5,006
65	75,301	19.28	59,640	17.02		

Note: Life expectancy is calculated on the assumption that the distribution of deaths is linear for each age interval except the first.

Source: Statistics Canada, Health Division, *Longevity and Chronological Life Tables, Canada and the Provinces*, Catalogue 89-506.

years were low between 1921 and 1986 (1.86 years for males and 2.10 for females) because progress was principally realized in youth and adulthood.

LEADING CAUSES OF DEATH

The fight against a disease or a group of diseases must be taken up by society as a whole, and requires long-term investments of financial and human resources as well as knowledge. Either progress is made, or the disease resists and wins out despite the degree of effort invested. Measures detected in the time series and presented in this section are known as long-term trends.

Diseases of the Circulatory System

Progress in the fight against diseases of the circulatory system is often brought to attention with an unvoiced fear that the triumphant march will eventually come to a halt. For the moment, there is still reason to be optimistic. Gains have accelerated in the course of the last years: both males and females recorded higher gains in 1981-1985 than in the previous five-year period, according to standardized death rates. In the recent past (1969-1987), the standardized rate fell by 37 per cent for males and by 40 per cent for females (Table 34). With rare exceptions, all cohorts have benefited from gains accumulated in the ages they have traversed (see Chart VI).

Of all the cardiovascular diseases, ischemic heart diseases are the most deadly. A reduction in the number of deaths from these diseases is largely responsible for the increase in life expectancy over the age of 50. The standardized death rate among males for ischemic heart diseases slid from 229 per 100,000 in 1969 to 180 in 1987. Ischemic heart diseases accounted for 68 per cent of deaths from cardiovascular diseases in 1969, and they now represent 65 per cent of a lower total. The much less fatal cerebrovascular diseases also dropped considerably, by 47 per cent over the same period. For females, death rates for ischemic heart diseases decreased from 204 to 118 per 100,000, and for cerebrovascular diseases from 91 to 46 per 100,000.

All age groups have evolved through almost the same relative decline in rates of death from ischemic heart disease, with slightly higher drops among adults between 40 and 65 years of age (Chart VII). But a break is evident in the slope between 1976 and 1978 for men. After a moderate decrease between 1969 and 1977, the fall in rates has accelerated in an important way over the past 10 years. Because all age groups benefited from these gains, drops do not appear to be a cohort phenomenon, but rather the result of relative and sudden improvements, the exact nature of which is difficult to determine. Without overlooking the contribution of medical care and surgery, which increasingly reduce the risk of dying at crucial moments in a person's life,¹⁵ medical

¹⁵ Some 40 per cent of the decrease in deaths from ischemic heart diseases between 1968 and 1976, in the United States could be attributed undoubtedly with some optimism to specific medical intervention (*Annals of Internal Medicine*, 1984: 101:825-836).

Table 34. Standardized Rates of Death¹ from Diseases of the Circulatory System by Sex, Canada, 1969-1987

Year	Diseases of the circulatory system ²	Ischemic heart diseases ³	Cerebro-vascular diseases ⁴
Male			
1969	438.47	299.14	74.41
1970	431.50	297.73	73.57
1971	423.36	289.09	72.45
1972	425.73	289.79	73.58
1973	419.72	284.53	71.00
1974	420.32	285.07	70.39
1975	404.52	274.18	67.49
1976	400.27	271.66	64.17
1977	398.39	266.14	61.21
1978	374.85	253.05	58.69
1979	362.97	237.96	56.50
1980	354.56	232.80	53.49
1981	340.03	224.87	51.36
1982	333.28	218.93	48.09
1983	320.20	209.96	45.33
1984	306.12	200.68	43.98
1985	298.76	195.73	41.77
1986	291.37	188.44	40.45
1987	277.52	179.75	39.79
Female			
1969	363.54	204.35	90.58
1970	351.71	200.24	87.32
1971	342.54	192.24	86.41
1972	341.65	191.55	86.31
1973	335.05	190.07	81.73
1974	332.95	190.05	81.81
1975	318.28	178.17	79.46
1976	309.05	174.28	74.45
1977	298.59	169.11	69.92
1978	289.00	164.90	66.12
1979	278.88	151.93	64.85
1980	277.09	150.92	61.87
1981	263.16	143.52	59.65
1982	259.87	141.57	57.13
1983	247.29	133.93	54.02
1984	239.43	131.70	50.98
1985	233.61	125.74	49.98
1986	230.55	124.51	49.67
1987	218.95	118.21	46.46

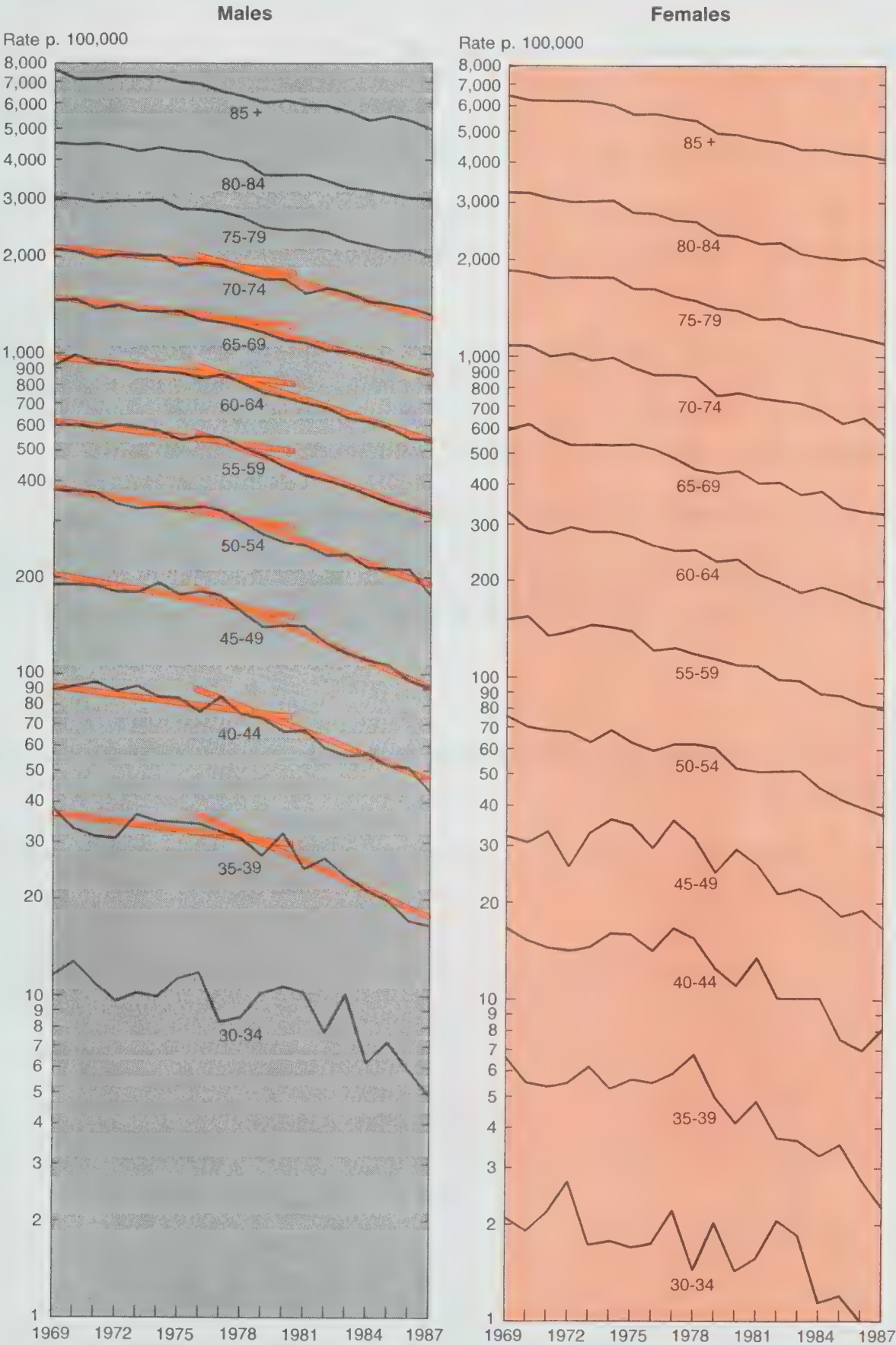
¹ Rates per 100,000 standardized according to the 1976 population structure.

² Causes 390-459, 8th and 9th revisions of the ICD.

³ Causes 410-414, 8th and 9th revisions of the ICD.

⁴ Causes 430-438, 8th and 9th revisions of the ICD.

Figure VII
Mortality Rates for Ischemic Heart Diseases,
by Age and Sex, 1969-1987



Source: Vital Statistics, Causes of Death, 1969-1987.

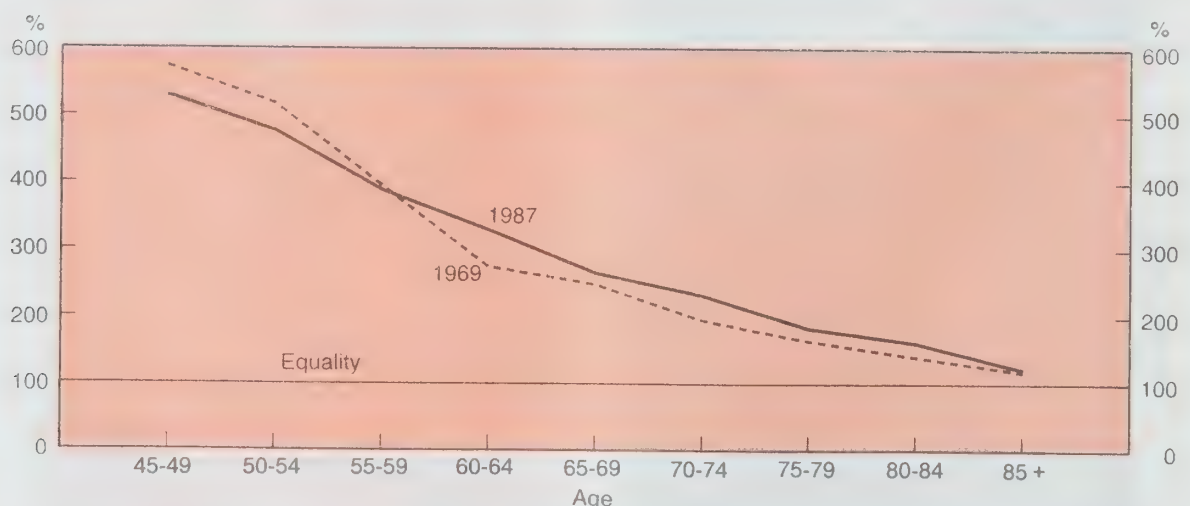
literature is unanimous in attributing most decreases in death from cardiovascular disease to the prevention of coronary artery disease. Reduction of cholesterol levels in the blood through proper diet, control of blood pressure and the cessation of smoking are the primary means of prevention. The marked increase in the number of people who have quit smoking in recent years may have played a key role in bringing down the mortality rate. Tobacco smoking has a rapid impact on the probabilities of sudden death and acute myocardial infarction, by far the leading causes of death involved. That the same change has not been recorded for females over 50 is noteworthy.

Health and Welfare Canada's publication *The Smoking Behaviour of Canadians in 1986*¹⁶ by W.J. Millar states that the percentage of male smokers fell from 54 per cent in 1966 to 31 per cent in 1986. It dropped more specifically from 58 per cent to 34 per cent in the 45-64 age group and from 32 per cent to 19 per cent in the over-65 age group; yet, these are the age groups that most frequently suffer from cardiovascular diseases. Female smokers recorded a smaller drop, from 32 per cent to 25 per cent in the 45-64 age group, and an increase from 8 per cent to 11 per cent in the over-65 age group.

The Sex Differential in Ischemic Heart Disease Mortality

The reduction in male deaths from cardiovascular diseases is generally so well-known that we often overlook the fact that women have benefited as

Figure VIII
Excess Male Mortality for Ischemic Heart Diseases,
Canada, 1969 and 1987



Source: Table A9 in Appendix.

¹⁶ Health and Welfare Canada (1988) W.J. Millard. *The Smoking Behaviour of Canadians in 1986*, Ottawa, Supply and Services Canada, Table 5, p. 41.

much, if not more, from the preventive and curative practices of the past few decades. Male excess mortality is now lower between 45 and 55 years of age than it was in 1969, but after 55, it is more elevated because of the decrease in female rates (Chart VIII). For example, the probability of dying from ischemic heart diseases between 40 and 50 years of age is always over five times higher for males than for females. The lower death rate among women is partly due to different physiological reactions to agents that cause cardiovascular disease and to a different internal make-up.

Cancer Mortality

Whereas the number of deaths from cardiovascular diseases has fallen over the past few decades, not only have cancer deaths not fallen, but they seem to be on the rise (Tables 35 and 36).

Males

In 35 years, the standardized death rate for males has risen steadily from 136 per 100,000 to 182, and change from one year to another has been steady in this direction. If this indeed means that cancer is causing more deaths, then this statement needs to be qualified. Death rates, as shown in Chart IX, have generally shown a downturn since 1956 for ages under 35, a slight increase with minor fluctuations for ages 35 to 54, and a distinct increase after age 55.

This does not mean that there has been no progress in the fight against cancer. The death rate for any given cause of death at any given age depends on the rates of concurrent causes at this age and at preceding ages. If at time $t + n$ all causes of death taken together left more survivors at age x than at time t , then the progress made in the reduction of this particular cause of mortality may not cause a drop in its death rate. This means that if the struggle

Table 35. Standardized Rates of Death¹ from Cancer³ by Sex, Canada, 1951-1987

Year	Male	Female
1950-1952 ²	136.04	137.27
1955-1957	145.11	135.05
1960-1962	150.05	130.67
1965-1967	152.11	128.24
1970-1972	167.44	126.88
1975-1977	170.93	128.60
1980-1982	176.44	125.28
1985-1987	182.07	125.58

¹ Rates per 100,000 persons, standardized according to the 1976 population structure.
² Average of 3 years.
³ Causes 140 to 209 8th and 9th revisions of the ICD.

Table 36. Rates of Death¹ from Cancer by Age Group and Sex, Canada, 1951-1996

Age group	1951	1956	1961	1966	1971	1976	1981	1986	Extrapolations	
									1991	1996
Male										
0-4	10.92	11.89	11.15	9.98	9.00	6.34	5.50	5.23	4.08	3.04
5-9	7.71	8.66	7.65	8.10	8.71	7.86	6.65	4.88	5.99	5.65
10-14	6.03	6.15	7.07	6.53	6.46	4.98	4.84	4.24	4.43	4.13
15-19	8.46	9.09	10.20	9.69	8.35	7.97	5.84	6.27	6.11	5.64
20-24	9.86	9.81	10.11	12.42	9.49	9.26	7.66	7.62	7.82	7.44
25-29	13.21	14.91	14.28	14.10	11.78	10.89	9.87	8.77	8.54	7.73
30-34	18.66	19.53	18.21	16.60	17.00	17.91	13.55	14.47	13.79	13.08
35-39	27.73	31.07	29.79	28.22	30.64	27.81	27.49	25.62	26.61	26.18
40-44	50.32	46.37	52.92	55.71	59.62	56.35	51.39	50.34	54.99	55.46
45-49	101.31	98.07	97.77	105.33	113.19	113.99	108.61	106.79	113.54	115.30
50-54	182.82	193.51	185.89	198.41	205.56	214.14	218.89	211.90	224.01	229.04
55-59	304.96	325.15	337.80	346.65	358.44	371.96	398.03	407.60	420.45	434.70
60-64	482.78	517.88	521.93	555.75	590.18	595.32	619.57	644.68	667.60	690.18
65-69	689.32	728.54	764.75	833.14	891.29	883.46	935.40	967.08	1018.39	1058.78
70-74	943.27	987.91	1,095.32	1,132.08	1,244.30	1,294.45	1,315.61	1,361.15	1,454.26	1,517.04
75-79	1,326.61	1,391.43	1,434.08	1,494.60	1,630.53	1,702.44	1,753.75	1,837.34	1,910.33	1,985.66
80+	1,649.68	1,896.33	1,937.54	1,601.76	2,161.52	2,263.90	2,430.52	2,598.30	2,648.70	2,777.87
Female										
0-4	10.04	10.15	8.95	8.80	8.05	5.57	4.72	3.92	3.19	2.22
5-9	6.38	6.35	5.91	6.50	6.02	5.54	4.66	3.72	4.10	3.76
10-14	5.82	5.22	5.07	4.57	5.14	4.05	3.70	3.09	3.02	2.67
15-19	5.52	6.08	6.06	5.94	4.94	4.26	4.06	3.89	3.60	3.27
20-24	7.38	7.47	6.71	7.36	6.44	5.96	4.70	4.33	4.24	3.78
25-29	12.79	12.66	12.26	10.82	10.34	8.46	9.30	8.35	7.42	6.71
30-34	28.17	26.28	22.53	21.11	21.05	18.10	17.50	17.13	14.28	12.68
35-39	55.30	47.56	48.66	45.41	43.36	38.89	35.12	32.61	29.84	26.84
40-44	97.29	90.82	87.42	86.30	78.43	68.95	70.37	69.48	61.83	57.54
45-49	160.88	147.04	144.92	142.68	136.98	128.92	119.55	121.63	112.86	107.32
50-54	219.36	209.47	215.17	214.02	215.19	193.28	198.29	207.17	197.97	195.53
55-59	310.69	300.79	296.97	292.54	298.84	291.21	300.99	304.28	296.60	295.94
60-64	420.28	418.21	390.06	382.92	394.95	395.86	404.74	424.29	403.39	403.27
65-69	543.55	535.69	519.23	515.83	508.27	514.43	537.03	566.31	537.76	539.48
70-74	735.83	697.42	694.97	660.25	678.31	685.91	692.38	737.52	696.62	696.35
75-79	1,000.35	993.56	916.57	904.18	893.19	858.63	863.69	950.61	859.26	845.18
80+	1,255.07	1,331.29	1,292.08	1,283.90	1,256.07	1,245.65	1,284.88	1,342.18	1,297.67	1,300.18

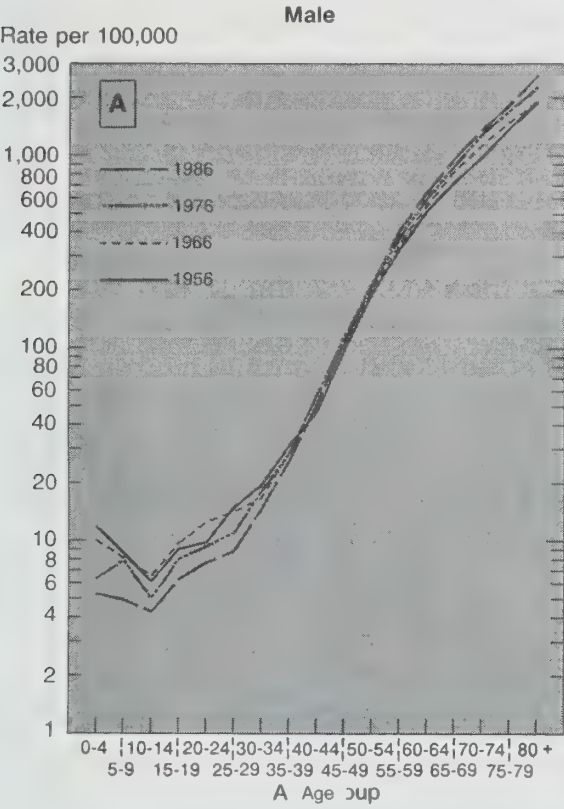
¹ Rates are based on a three-year average of deaths from cancer. For example, the 1951 rate was obtained from the average of deaths from cancer in 1950, 1951 and 1952.

Source: Censuses for 1951 to 1986; *Death from Cancer, 1950-1963*, Catalogue No. 84-520; and *Causes of Death*, Catalogue No. 84-203 (annual), (causes studied: 140-209, 8th and 9th revisions of the ICD).

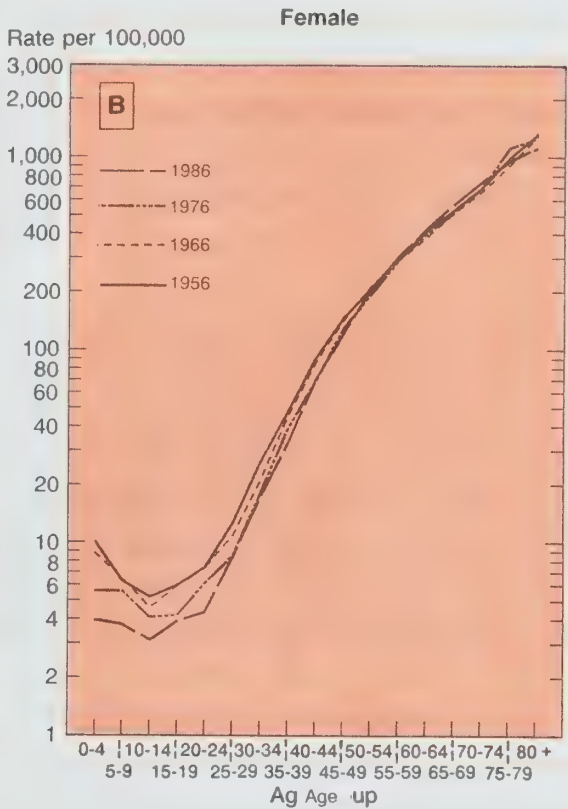
against a particular disease has progressed more slowly than the struggle against concurrent diseases, it will appear to have regressed, since the death rate will have increased.

Figure IX
Cancer Mortality, by Age and Sex,
Canada, 1956, 1966, 1976 and 1986

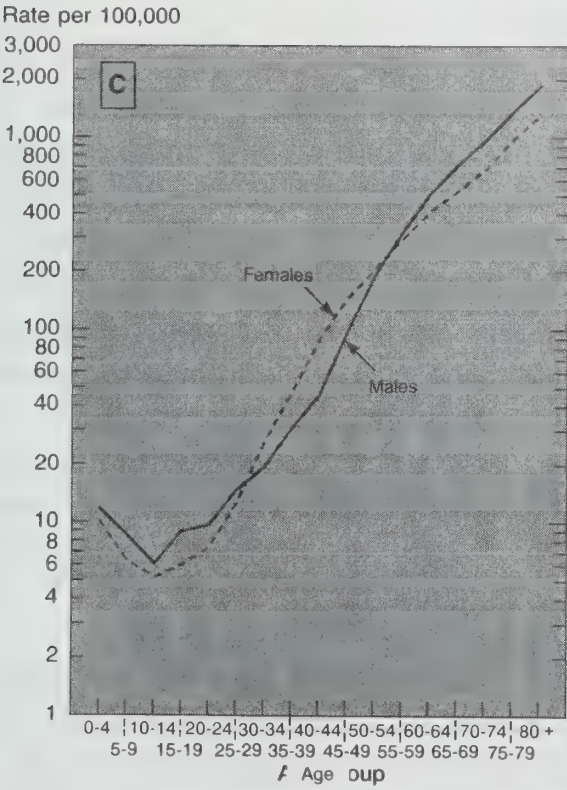
Death rate,
1956, 1966, 1976 and 1986



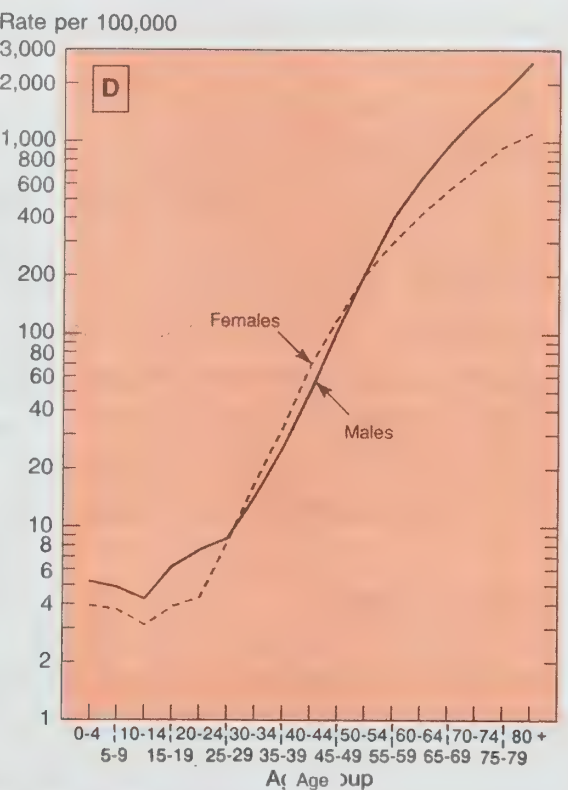
Death rate,
1956, 1966, 1976 and 1986



Death rate, 1956



Death rate, 1986



Females

The general trend for females is just the opposite: the standardized rate slid from 137 to 126 per 100,000. This decline is evidently much weaker than the increase for men (Table 35). The decrease is almost entirely due to gains recorded before age 55. As shown on Chart IXB, the curves of the rates for the beginning (1956) and end (1986) of the period cross at age 55, and the difference between the two before this age represents the gain. Beyond age 55, there is no difference in the curves at diverse years, as male losses begin to accrue. The advantages acquired for men at an earlier age are more than cancelled by the increases over the determining age of 55.

One cannot help but notice the different shapes in the curves between 25 and 55 years of age: concave for men and convex for women. This is primarily because we observe under one name a whole range of diseases whose site and evolution are, by their very nature, quite different. One could think that women in the adult segment of life, especially in the course of their childbearing period, are at risk of cancers specific to the female physiology. For the first part of the life segment, it could be suggested that, as is known with other illnesses, the male is more vulnerable than the female.

The changes over the period of study are remarkable. Excess mortality among women (especially between 25 and 54 years old) dropped considerably because female rates decreased faster than those of males (Chart IX). It is, therefore, a question of the difference in the speed of progress between the two sexes.

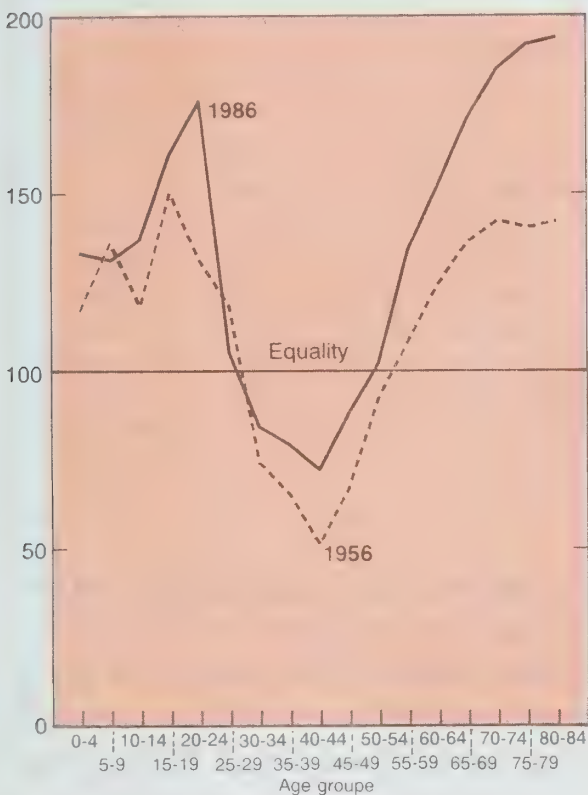
The Sex Differential in Cancer Mortality

The superimposition of the male and female charts clearly shows that the probability of death from cancer is greater for males than for females in each five-year age group outside of the 25-55 year life segment (Chart X). Like all chronic diseases, cancers depend on risk factors that are themselves linked to lifestyles. Given the number of men who smoke, drink and work in noxious environments, excess male mortality at advanced ages is not surprising. But common sense does not satisfactorily explain the very appreciable excess male mortality among those aged 0 to 30 mentioned earlier. That these two segments flank a third segment characterized by excess female mortality implies only that certain cancers are causing fewer deaths while others are causing more.

Cervical Cancer

Major victories have been recorded in the fight against cancer of the cervix (Table 37). In 1951, cervical cancer accounted for between 12 per cent and 17 per cent of cancer deaths in the three five-year age groups before age 50. In 1986, they did not represent any more than 4 and 7 per cent, and the death

Figure X
The Sex Differential in Cancer Mortality¹ by Age Group, Canada, 1956-1986



¹ The ratio of male death rate to the female rate.
Source: Vital Statistics, *Causes of Death*, 1956-1986.

were practically unaffected 30 years ago. Other carcinogenic agents have multiplied in the air that we breathe daily. The female mortality rate for cancer of the respiratory tract increased more than fivefold in 35 years, with the result that, at this time, for every five women between the ages of 50 and 60 who die of cancer, one dies of lung cancer. Thirty years ago, the ratio was less than one to twenty.

rate for all cancers at these ages remained virtually unchanged. Other types of cancer therefore either regressed more slowly, or not at all. It is the reduction in this cause that led to a general reduction in deaths from cancers of the female genitalia; only a negligible decrease was recorded for other types of uterine cancers, and no decline was recorded for breast cancer.

Cancer of the Respiratory Tract

Against these victories, there are the defeats: lung cancer for example. The increase in death from cancer of the respiratory tract has already been documented at length. Table 38 shows the rate of growth over the past 35 years. It would be going too far to blame tobacco inhalation as the sole factor behind the considerable increase in lung cancer among females, who

Table 37. Changes in Death from Cancer of the Cervix (rate per 100,000 females) by Age Group, Canada, 1951 and 1986

Age group	1951			1986			Difference in rates (7) (4) - (1)	Difference in % (8) (3) - (6) (3)
	Cervical cancer (1)	All cancers (2)	% (3)	Cervical cancer (4)	All cancers (5)	% (6)		
35-39	9.55	55.30	17.3	2.26	32.61	6.9	-7.29	-60
40-44	15.69	97.29	16.1	3.11	69.48	4.5	-12.58	-72
45-49	19.61	160.88	12.2	5.28	121.63	4.3	-14.33	-65
50-54	20.17	219.36	9.2	5.21	207.17	2.5	-14.96	-73
55-59	24.32	310.69	7.8	6.45	304.28	2.1	-17.87	-73
60-64	28.80	420.28	6.9	8.07	424.29	1.9	-20.73	-73
65-69	30.33	543.55	5.6	10.58	566.31	1.9	-19.75	-66
70-74	32.75	735.83	4.5	11.86	737.52	1.6	-20.89	-65

Source: Statistics Canada, *Causes of Death*, Catalogue No. 84-203.

Table 38. Changes in Death from Cancer of the Respiratory Tract (rate per 100,000 females) by Age Group, Canada, 1951 and 1986

Age group	1951			1986			Difference in rates (7) (4) - (1)	Difference in % (8) <u>(3) - (6)</u> (3)
	Respiratory cancer (1)	All cancers (2)	% (3)	Respiratory cancer (4)	All cancers (5)	% (6)		
50-54	8.38	219.36	3.8	45.62	207.17	22.0	37.2	479
55-59	12.70	310.69	4.1	66.26	304.28	21.8	53.6	432
60-64	17.91	420.28	4.3	91.19	424.29	21.5	73.3	400
65-69	23.52	543.55	4.3	118.43	566.31	20.9	94.9	386
70-74	25.86	735.83	3.5	133.41	737.52	18.1	107.6	417

Source: Statistics Canada, *Causes of Death*, Catalogue No. 84-203.

1951: Causes A44, A49 and A50, abridged edition of the 6th revision of the ICD.

1986: Causes 160-165, 9th detailed revision of the ICD.

Mortality from cancer of the digestive system declined as a result of a reduction in cancer of the mouth, the esophagus and the large intestine. Variations are insignificant for men over the course of this period. There was only a slight drop in cancer of the digestive system, almost totally offset by the rise in cancer of the respiratory tract, which grew by some 40 per cent (from 43 to 62 per 100,000).

Conclusion

Cancer appears, as a group of diseases, to be very resistant. Among women there were improvements at young ages, but males were not so lucky; if there were improvements in the first half of life, there were retreats in the second.

Traffic Accidents

Traffic accident mortality remains a subject of surveillance because of the gravity of its consequences. Substantial improvements have already been noted for both sexes between 1971 and 1981. The standardized rate decreased from 39 to 32 per 100,000 for males, and from 15 to 11 for females. In both 1982 and 1983 this drop accelerated, bringing the rates down from 24 to 9 per 100,000. This level has since stabilized and age-specific rates no longer reveal any new tendencies for either sex.

Suicides

There are probably more suicides than those indicated by the statistics. If the standardized rate of death from suicide summarizes the recent, general trend for this cause of death in Canada, then it is almost completely stable. Minimum variations since 1976 neither align with a trend nor coincide with any particular conjunction of socioeconomic circumstances. A slight rise in

Table 39. Deaths and Death Rate in Traffic Accidents (per 100,000)¹ by Age Group and Sex, Canada, 1971-1987

Age group	1971		1981		1982		1983		1984		1985		1986		1987	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
0 - 4	11	9	8	6	5	4	4	3	3	4	3	3	4	3	5	4
5 - 9	18	13	10	7	6	6	8	4	6	4	7	5	5	4	6	3
10 - 14	15	8	13	5	10	6	10	4	9	5	8	5	8	4	9	4
15 - 19	62	24	64	19	49	16	18	16	49	13	49	16	46	16	48	16
20 - 24	85	21	68	17	51	11	53	12	46	11	49	13	46	11	48	12
25 - 29	47	13	43	12	32	8	28	8	28	8	28	7	25	8	29	8
30 - 34	39	5	32	9	22	7	19	6	16	4	17	5	15	5	17	5
35 - 39	34	13	26	6	15	9	12	4	11	4	12	5	11	3	11	4
40 - 44	30	12	25	9	18	8	11	3	11	4	11	4	10	5	9	4
45 - 49	33	12	27	9	22	7	8	5	9	4	10	6	9	4	9	4
50 - 54	33	12	25	12	17	7	10	5	10	4	8	5	8	5	9	5
55 - 59	35	16	24	8	20	9	8	5	8	4	7	5	9	4	8	4
60 - 64	35	20	27	13	16	11	7	3	7	4	8	4	6	4	8	4
65 - 69	45	23	30	14	28	14	5	3	5	3	5	4	6	4	7	4
70 - 74	46	20	29	13	27	16	5	4	5	4	6	4	5	4	5	4
75 - 79	47	25	32	21	31	14	4	3	5	4	4	3	4	3	3	3
80 - 84	55	23	37	19	44	16	3	2	3	2	3	2	3	2	3	2
85 +	38	16	50	14	37	7	2	1	2	1	3	1	2	1	2	1
Deaths	4,029	1,587	3,935	1,360	2,934	1,139	2,714	1,142	2,858	1,111	2,923	1,226	2,758	1,164	2,967	1,210
Standardized rates ²	39	15	32	11	24	9	21	9	23	9	23	10	22	9	24	9

¹ Causes 810-819 of the ICD.

² Based on the population in 1976.

Source: Statistics Canada, *Causes of Death*, Catalogue No. 84-203.

the suicide rate for 15 to 19-year-old males since 1981 can be discerned to a point. But given the uncertainty of the reliability of records and census under-coverage, it would be better not to interpret this as an increase. Females, at the most, show only a slight rise in the rate of suicide death.

Table 40. Rate of Death by Suicide (per 100,000) by Age Group and Sex, Canada, 1951, 1976, 1981, 1984, 1985, 1986 and 1987

Age group	1951 ¹	1976 ¹	1981 ¹	1984 ¹	1985 ¹	1986 ¹	1987 ¹
Male							
15-19	3.9	18.6	20.3	22.0	20.0	19.4	20.3
20-24	8.8	33.6	32.1	33.0	32.4	32.3	31.4
25-29	7.6	28.1	28.9	31.0	28.2	30.4	32.2
30-34	10.4	24.3	26.6	29.0	27.0	28.7	31.0
35-39	13.2	25.2	24.7	24.5	24.5	25.6	26.0
40-44	19.6	27.3	26.2	28.0	25.9	28.0	28.4
45-49	21.6	29.3	29.1	22.5	25.2	25.6	28.5
50-54	26.4	32.7	29.7	30.0	30.2	29.0	29.8
55-59	27.2	26.6	29.6	32.0	29.8	28.3	28.9
60-64	30.8	24.1	27.2	29.0	25.4	25.7	24.8
65-69	28.2	24.3	26.8	26.0	24.6	25.3	26.8
70-74	29.5	26.3	30.1	30.5	29.9	32.6	33.4
75-79	32.8	24.9	34.4	35.0	29.0	32.5	33.3
80-84	25.1	21.2	41.7	36.5	33.5	34.7	34.4
Standardized rate ²	15.7	26.5	27.5	28.1	23.8	24.3	25.1
Female							
15-19	1.8	4.5	3.8	3.5	3.5	4.1	4.5
20-24	3.2	7.7	6.5	5.0	4.8	5.1	5.6
25-29	3.9	8.6	7.5	7.0	6.3	6.4	6.8
30-34	3.8	10.4	8.0	8.5	7.4	7.8	8.5
35-39	4.6	10.9	8.6	9.0	7.7	8.5	8.8
40-44	6.4	10.8	10.4	11.5	9.8	8.4	10.0
45-49	7.2	14.0	12.4	11.5	9.8	10.3	10.3
50-54	8.3	13.4	13.6	11.5	9.9	10.3	11.2
55-59	7.3	13.7	12.3	11.0	9.9	8.4	8.2
60-64	9.0	11.9	11.2	11.0	8.9	6.5	8.9
65-69	9.3	9.9	10.3	11.5	8.9	8.6	9.2
70-74	6.3	8.4	9.3	8.0	7.2	8.4	7.2
75-79	5.9	5.8	7.1	6.0	5.9	7.4	7.4
80-84	2.0	7.3	6.9	8.0	5.2	4.4	6.1
Standardized rate ²	3.3	6.1	5.5	5.2	6.4	6.5	6.9

¹ Average for 1950 and 1951, 1975 and 1976, 1980 and 1981, 1983 and 1984, 1984 and 1985, etc.

² Based on the population in 1976.

INTERNATIONAL IMMIGRATION

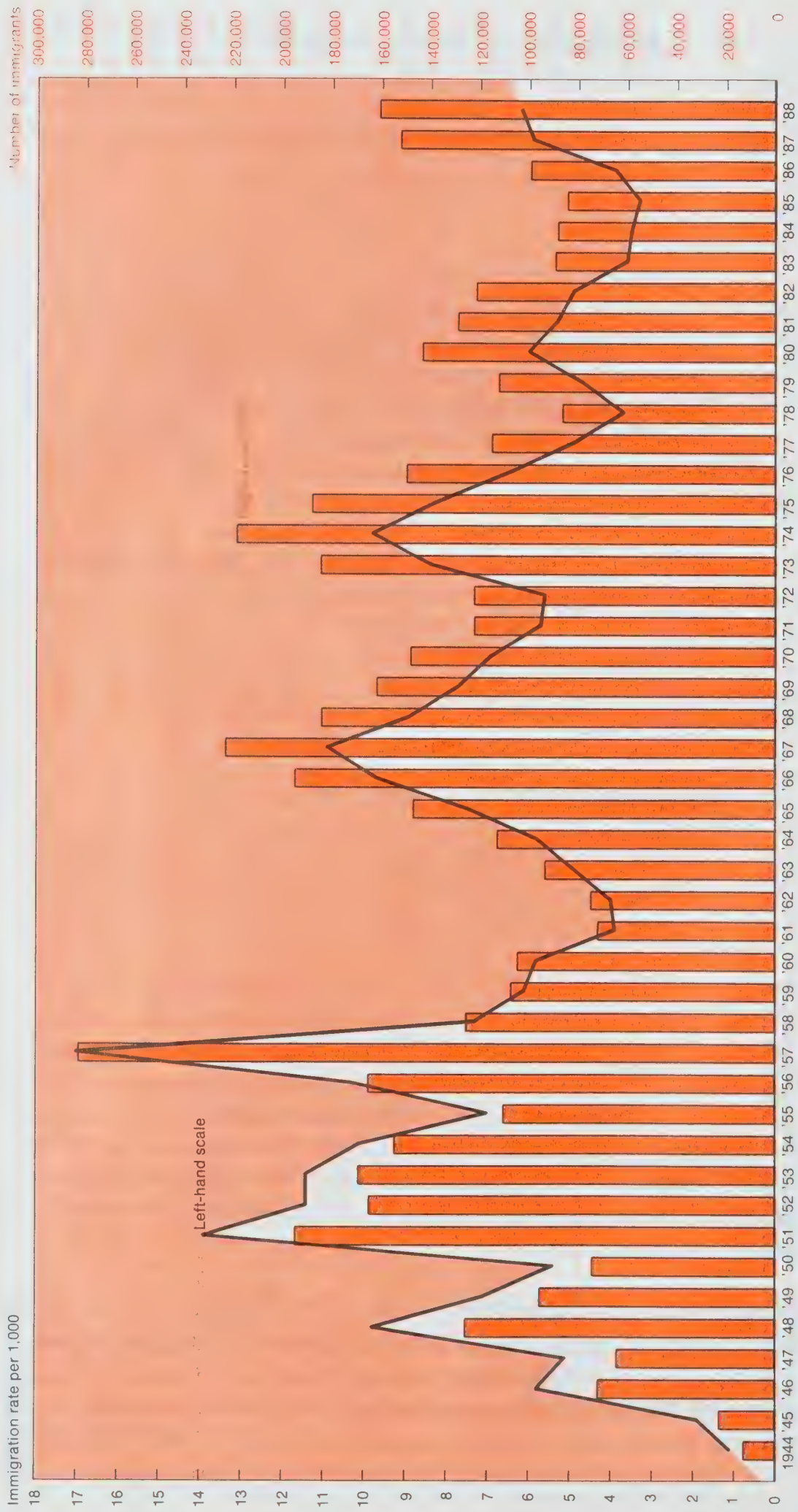
In 1985, immigration reached its lowest level (84,302 persons) since 1961, when the post-war minimum of 71,689 was registered. This 1985 low resulted from an unfavourable economic climate that had afflicted the country since the beginning of the decade. Entries of independent immigrants were severely restricted. Since then, immigration has risen sharply, doubling in three years to 160,762 entrants in 1988. Figures are higher than predicted on immigration level reports because the administrative review allowed a backlog of several thousand applications to be processed (6,596 in 1986, 17,139 in 1987 and 855 in 1988). The level anticipated for 1989 is between 150,000 and 160,000, but refugee files pending process and strong pressure exerted by applications from Hong Kong investors will, once again, cause these levels to be substantially exceeded.

It is impossible to predict whether this will be a lasting trend or whether it is again merely an upswing of several years to be followed by another low. It is good to keep in mind that 150,000 entries at the current fertility level would give Canada a population of 32 million in 2027. After this date, the population would start to decline. This gain of barely 6 million in 40 years implies a weak annual growth rate of 5.2 per 1,000.

The 1988 immigration level is not new. Some 20 years ago, in 1969, Canada accepted almost exactly the same number of persons, but there are considerable differences between the two flows (Table 41). In 1969, some 22 countries provided over 1,000 immigrants each, accounting for 132,000 of the 161,000 persons accepted. In 1988, the list comprised 37 countries for an almost identical total of 133,000 of the 160,000 accepted in all. For the first time, Asia supplied more than half (51.4%) of these immigrants, that is, 82,382 out of 160,732 entrants. Only seven countries on the 1969 list were developing nations, and six countries including Australia and four in Europe, disappeared from the list in 1988. On the other hand, the 1988 list included some 15 other third-world countries, to illustrate the growing diversity in the source countries of new Canadians. One factor that contributed to this diversification was Canada's openness to refugees (as defined by the International Geneva Convention) and to persons in difficulty, when it generally finds itself in favourable economic circumstances.

Canada holds great appeal the world over for persons who are endangered in their country of origin. Hence, the "refugees and designated classes" category jumped 60 per cent between 1985 and 1988. In contrast, persons admitted by virtue of family reunification accounted for a much smaller part of the increase in immigrants accepted, registering a rise of only 31 per cent. But it is the independent immigrants class and its different sub-categories that

Figure XI
Numbers of Immigrants and Immigration Rates, Canada, 1944-1988



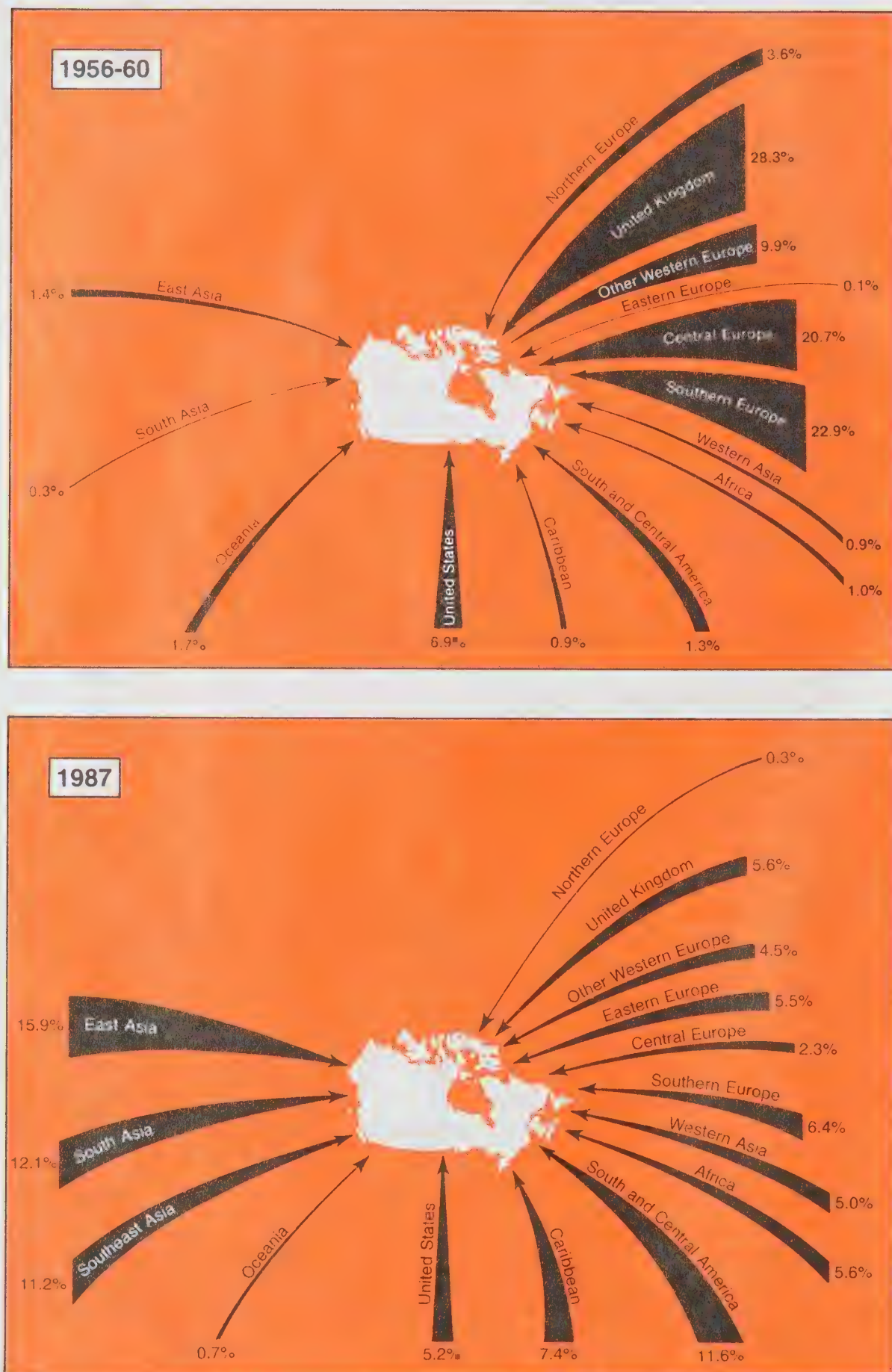
Source: Employment and Immigration Canada, Immigration Statistics 1983.

Table 41. Countries From Which Over 1,000 Immigrants Were Received in 1969 and 1988

Country of birth	1969	1988
Great Britain	28,790	7,479
United States	19,258	5,553
Italy	10,685	
Portugal	7,917	3,978
Greece	7,106	1,210
India	6,736	11,868
Trinidad and Tobago	5,631	2,175
China	5,610	7,799
Yugoslavia	5,462	1,397
Czechoslovakia	5,029	
Federal Republic of Germany	4,208	1,549
Jamaica	3,889	3,997
France	3,612	1,809
Hong Kong	3,354	18,037
Philippines	3,138	8,637
Australia	2,628	
Egypt	1,839	1,171
Ireland	1,627	
Switzerland	1,606	
Poland	1,513	9,309
Barbados	1,242	
Hungary	1,132	1,321
Vietnam		6,148
Iran		4,081
Lebanon		3,691
Guyana		3,079
Korea		2,807
Sri Lanka		2,718
El Salvador		2,684
The Azores		2,239
Malaysia		2,124
Taiwan		1,984
Haiti		1,846
Romania		1,601
Ethiopia		1,550
South Africa		1,469
Kampuchea		1,359
Peru		1,234
Pakistan		1,233
Kenya		1,198
USSR		1,147
Israel		1,025
Chili		1,000
Total	132,012	133,506

Source: Employment and Immigration Canada, *Immigration Statistics, 1969-1988*, Catalogue No. WH-5-006.

Figure XII
Immigration Streams According to Region of Last Residence,
Canada, 1956-60 and 1987



Source: Employment and Immigration Canada, Immigration Statistics.

increased the most: by 224 per cent (Table 42). From these figures, it appears that Canada seems to impose stiffer immigrant selection criteria than before: 51 per cent of those admitted in 1988 were selected under the immigration points system, compared with only 34 per cent in 1985. This 1988 proportion has been unequalled since the mid-1970s. The "investors" class, a new category, has been a success: 245 persons, not counting dependents, directly injected at least \$122 million worth of capital investments into the Canadian economy in only one year.

Do Immigrants Stay in Canada?

Migration studies show that not all immigrants remain in the country where they have settled, despite the difficulties they may have faced in getting there. Some return to their country of origin, while others opt for a third country. It is difficult to assess the percentage of immigrants who remain in Canada, as emigration is not recorded anywhere. Given what we know about the age structure of immigrants, we can apply legitimate probabilities of survival for a given duration, and estimate roughly the number who have remained and who we know must be identified in the census. The comparison of this expected population with the real observed population is an approximation of the number of immigrants who left (we can neglect the effect of mortality for the short durations between arrival and census). The comparison shows that those who leave do so soon after arrival (Table 43). One would have expected some 115,000 of the 121,900 immigrants accepted in 1971 to be enumerated in the

Table 42. Distribution of Immigrants Accepted by Class, Canada, 1985-1988

Class	1985	%	1986	%	1987	%	1988	%	1985-1988 Increase
Family	38,514	46	42,197	43	53,598	35	50,618	32	31%
Refugees and designated classes	16,760	20	19,147	19	21,565	14	26,462	17	58%
Assisted relatives	7,396	9	5,890	6	12,283	8	15,320	10	107%
Entrepreneurs	4,959	6	5,866	6	8,440	6	11,115	7	124%
Self-employed workers	1,522	2	1,629	2	2,313	2	2,652	2	74%
Investors	-	-	23	-	316	-	1,011	1	-
Independent immigrants	15,151	18	24,467	25	50,921	33	49,163	31	224%
Retired	-	-	-	-	2,662	2	3,096	2	-
Total	84,302	100	99,219	100	152,098	100	159,437	100	

Source: Employment and Immigration Canada, *Immigration Statistics*, Catalogue No. WH-515.

1986 census, assuming that about 6,000 had probably died, whereas the actual figure was 84,900 (Table 44). Approximately 30,000 persons, 26 per cent of the remaining immigrants in the 15-year period, were therefore missing.

Table A12 (see Appendix) shows a similar number of “redepartures”. It implies that the fraction of those who do not stay is important, and that redepartures occur soon after arrival. The Demography Division is now trying to estimate more precisely how many immigrants remain in Canada. We already know that this level varies with the immigrant’s place of origin and, of course, with the time lapsed since their arrival.

Immigrant Destinations

Regardless of the class to which they belong, a very large percentage of immigrants (always over 40%) are destined for the labour market (44.5% in 1980, 44.3% in 1981, 45.8% in 1982, 41.6% in 1983, 42.3% in 1984, 45.6% in 1985 and 48.6% in 1986). For this reason, immigrants choose provinces of destination where economic activity is greatest (Table 45). The province where family, kin and community already reside is also a major factor in destination. This explains why very few immigrants (under 2%) have settled east of Quebec in Canada’s recent (post-war) history. Quebec itself attracts only moderate numbers (17.6% in 1987 and 15.9% in 1988) of immigrants even though its population represents 26 per cent of Canada’s. Alberta’s attraction peaked in the early 1980s, but has since yielded. With 9 per cent of the country’s population, Alberta attracted 9 per cent of all immigrants in 1988. British Columbia, whose demography is often mistakenly compared with Alberta’s, has consistently attracted more immigrants. For the same year (1988), it attracted 14 per cent of all immigrants even though its demographic weight was lower (11.4%). Ontario holds the most fascination for new

Table 43. Comparison of Annual Numbers of Immigrants with Numbers of Respondents in 1986, Canada

Year of immigration	Number	Respondents in 1986	Percentage of disappearances ¹
1981	128,618	106,955	17
1982	121,147	94,840	22
1983	89,157	70,635	21
1984	88,239	69,745	21
1985	84,302	72,735	14

¹ These are persons who may have been missed in enumeration, who returned to their country of origin or who opted for another country. Mortality is considered negligible for such a short period.

Table 44. Comparison of Numbers of Immigrants in 1971 With Numbers of Respondents in 1986 by Age Group, Canada

Age group	Number in 1971	Age in 1986	Population anticipated for 1986 ¹	Population enumerated in 1986	Difference
0-4	10,159	15-19	10,093	10,810	717
5-9	9,461	20-24	9,374	8,510	-864
10-14	6,888	25-29	6,820	5,370	-1,450
15-19	9,200	30-34	9,066	9,210	144
20-24	25,720	35-39	25,323	18,600	-6,723
25-29	23,330	40-44	22,884	13,345	-9,539
30-34	12,370	45-49	12,019	7,560	-4,459
35-39	7,294	50-54	6,964	4,455	-2,509
40-44	4,281	55-59	3,971	2,330	-1,641
45-49	2,825	60-64	2,507	1,765	-742
50-54	2,124	65-69	1,761	1,265	-496
55-59	2,117	70-74	1,583	1,110	-473
60-64	2,312	75-79	1,476	850	-626
65-69	1,824	80-84	910	475	-435
70 +	1,995	85 +	598	235	-363
Total	121,900		115,349	84,890	-30,459

¹ Probability of survival figures are from the Life Table of Canada, 1981. Survival figures are approximate, given that the age in 1971 was in principle the age on the day of arrival, while the age at enumeration was the person's age on census day.

Canadians. Fifty-five per cent of new arrivals designated that province as the one where they intended to settle. This is not a recent phenomenon. Since the end of World War II, at least 42 per cent of immigrants have opted for Ontario.

Once admitted to Canada, immigrants are free to change their place of residence, so information about where they currently reside may only be gathered from census data. These data can give a rough evaluation of immigrant mobility when compared with data on intended destination upon first stepping on Canadian soil. We assume that both mortality and the likelihood of leaving the country are constant across Canada.

Table 46 reveals that some early immigrants (1961-1971 arrivals), who had intended to settle in another province at the time of their arrival, were attracted to three provinces: Ontario, Alberta and British Columbia. The percentage of residents in these provinces in 1986 was more elevated than expected from intentions expressed at the point of arrival. Differences are less pronounced in recent years because of the shorter period of exposure to the risk of moving. Moreover, Ontario is now the only province that attracts large numbers. If British Columbia remains the initial choice for an important fraction, it finds itself deficient after some years when compared with initial intentions. This is without doubt a result of the origin of migrants. For example, Asians tend to land first in British Columbia before joining the large

Table 45. Percentage Distribution of Immigrants Admitted by Intended Province of Destination, Canada, 1956-1988

Province	Year										
	1956	1961	1971	1981	1982	1983	1984	1985	1986	1987	1988 ¹
Newfoundland	0.3	0.5	0.7	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.3
Prince Edward Island	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1
Nova Scotia	1.0	1.3	1.5	1.1	1.0	0.9	1.2	1.2	1.1	0.8	0.8
New Brunswick	0.5	1.1	0.9	0.8	0.6	0.6	0.7	0.7	0.7	0.4	0.4
Quebec	19.0	23.6	15.8	16.4	17.6	18.4	16.6	17.7	19.6	17.6	15.9
Ontario	55.0	50.9	52.8	42.7	43.8	44.9	47.1	48.3	50.0	55.8	55.1
Manitoba	3.5	3.5	4.4	4.2	4.1	4.5	4.4	4.1	3.8	3.2	3.1
Saskatchewan	1.3	1.9	1.2	1.9	1.8	2.0	2.4	2.3	1.9	1.4	1.4
Alberta	6.0	6.7	7.1	15.0	14.8	12.0	12.1	10.7	9.8	7.9	8.7
British Columbia	10.8	10.2	15.5	17.1	15.7	16.2	15.0	14.5	12.7	12.4	14.3
Yukon and Northwest Territories	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
Unknown	2.4	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total (in %)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total (in number)	164,857	71,689	121,900	128,618	121,147	89,157	88,239	84,302	99,219	152,098	159,437

¹ Preliminary data.

Source: Employment and Immigration Canada, *Immigration Statistics*, Catalogue No. WH-5-006.

community established in Ontario. Finally, Quebec always rapidly loses a part of its immigrants.

The Impact of Immigration on Age Structure

In the aging issue that faces Canada's population, it is sometimes argued that immigration has a rejuvenating effect on the host population. It is true that all migratory movements (both internal and international), as long as they are spontaneous, are characterized by an age structure that varies little whatever the country or period considered. The migrant population always includes more adults, especially young adults, fewer children, and fewer elderly persons than the host population. The demographic implications for countries or regions that gain or lose residents in this manner are primarily twofold: their impact on growth and their effect on the age structure. In reality, these effects are neither clear-cut nor systematic. They vary with the size and regularity of the influx, and the fertility and mortality characteristics of the population in question. They also depend on whether long or short-term effects are considered.

Many studies have been carried out on specific aspects of this subject, but general overviews are less numerous. Studies based on the stable population model effectively reveal a sense of the impacts in relation to hypotheses of fertility and mortality in the population, and their differences between host and immigrant populations. Unfortunately, real populations never have the hundred years necessary for the stabilization of the model, so the usefulness of these studies is limited. Moreover, in the short term, annual variations in flow size render the review very difficult.

It is nevertheless worthwhile to establish a reference point. Let us suppose, for instance, that in 1986 Canada instantaneously admitted an immigrant population equal to one tenth its current population, approximately 2.5 million persons, whose age structure corresponded to that of the 100,000 immigrants actually admitted in 1986 (Table 47). Surprisingly, the age structure hardly changes, even though the structure of the admitted population was clearly different. This is because the total population structure is a weighted average of the two components. As the weight of the immigrant population in this case is only one tenth that of the host population, it has almost no effect on the resulting population, even though it differs greatly in its structure. Given that the real flow is only 100,000 persons rather than 2.5 million, the direct effect is, for all intents and purposes, nil. The cumulative effect alone would not result in many more changes in 20 to 25 years.

Changes in structure could be caused by different fertility and mortality rates, but these differences in behaviour have proven to be slight¹⁷. Conse-

¹⁷ See fertility of foreign-born women.

Table 46. Percentage Distribution of Immigrants From Various Years, by Province of Residence in 1986, Showing Province of Destination Declared Upon Acceptance

	Province										Total
	Newfoundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	The Territories
Intention in 1961	0.5	0.1	1.3	1.1	23.6	50.9	3.5	1.9	6.7	10.2	0.2
Residence in 1986	0.3	0.2	1.2	0.5	18.1	56.0	2.8	1.1	7.2	12.5	0.1
Intention in 1971	0.7	0.1	1.5	0.9	15.8	52.8	4.3	0.3	7.1	15.2	0.2
Residence in 1986	0.4	0.1	1.1	0.9	12.3	56.2	3.2	1.2	7.9	16.7	0.2
Intention in 1981	0.4	0.1	1.1	0.8	16.4	42.7	4.2	1.9	15.0	17.1	0.2
Residence in 1986	0.2	0.1	0.8	0.6	14.6	46.9	3.7	1.7	14.3	16.9	0.1
Intention in 1982	0.3	0.1	1.0	0.6	17.6	43.8	4.1	1.8	14.8	15.7	0.1
Residence in 1986	0.3	0.1	1.1	0.6	16.0	48.6	3.6	1.6	12.8	15.1	0.1
Intention in 1983	0.3	0.1	0.9	0.6	18.4	44.9	4.5	1.9	12.0	16.2	0.1
Residence in 1986	0.1	0.1	1.1	0.5	17.4	48.9	4.8	1.7	10.8	14.5	0.1
Intention in 1984	0.3	0.1	1.2	0.7	16.6	47.1	4.4	2.4	12.1	14.9	0.1
Residence in 1986	0.4	-	1.3	0.6	16.0	49.4	4.4	2.0	11.6	14.2	0.1
Intention in 1985	0.4	0.1	1.2	0.7	17.7	48.3	4.1	2.3	10.7	14.5	0.1
Residence in 1986	0.2	0.1	1.0	0.6	17.6	49.6	4.4	1.8	11.2	13.3	0.1

Source: Employment and Immigration Canada, *Immigration Statistics*; 1986 Census, special tabulations.

Table 47. Age Structure of the Immigrant Population, the Canadian Population and the Resulting Population If the Volume of the Immigrant Population Had Been One-tenth the Canadian Population, Showing Dependency Ratios, 1986

Age structure	Immigrant population	Canadian population	Resulting population	Immigrant population	Canadian population	Resulting population
	Male			Female		
0-4	5.0	7.4	7.2	4.7	6.8	6.6
5-9	6.8	7.3	7.3	6.2	6.8	6.7
10-14	7.1	7.2	7.2	6.4	6.6	6.6
15-19	8.6	7.6	7.7	8.1	7.0	7.1
20-24	13.4	8.3	8.8	14.4	8.0	8.6
25-29	16.5	9.3	10.0	15.2	9.1	9.7
30-34	13.3	8.9	9.4	11.5	8.8	9.0
35-39	8.1	8.0	8.1	7.6	7.9	7.9
40-44	4.7	7.1	6.9	4.5	6.9	4.0
45-49	3.1	5.6	5.4	3.5	5.4	5.2
50-54	2.6	4.8	4.6	3.7	4.7	4.6
55-59	2.8	4.7	4.6	3.9	4.7	4.6
60-64	2.9	4.2	4.1	3.8	4.5	4.4
65 +	5.0	9.4	9.0	6.6	12.7	12.1
Children ¹ (ages 0-14)	18.9	21.9	21.7	17.3	20.2	19.2
Adults ² (ages 15-64)	76.1	68.7	69.3	76.1	67.1	67.1
Elderly ³ (ages 65 +)	5.0	9.4	9.0	6.6	12.7	12.1
(1) + (3) / (2)	31.4	45.6	44.3	31.4	49.0	46.6

Source: Employment and Immigration Canada, *Immigration Statistics*; 1986 Census, special tabulations.

quently, the country's own fertility is obviously the major cause of population aging or rejuvenation. The only type of immigration that could have an effect would be a veritable, but utopian, importation of young children, because this would be the same as an increase in the birth rate.

INTERPROVINCIAL MIGRATION

In Canada, extensive interprovincial migration within a fairly stable national population had always been linked to a relatively healthy economy. The recession early in the decade caused annual interprovincial migration to plummet to 273,000 persons; it subsequently recovered to reach 372,000 in 1988, the same figure as in 1980.

The end of Alberta's oil boom in 1982 stemmed the flow of interprovincial migration that had benefited the province. The return flow benefited Ontario, whose own population had suffered from the strong attraction exerted by the rich western province in previous years (Table 48). The following years continued to magnify these trends, with Ontario and other provinces once again registering positive net migration. Ontario was the only province to post a

Table 48. Net Migration for Provinces and Territories, 1970-1988

Year	New-foundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and Northwest Territories	Total
1970	-5,950	-29	-3,967	-2,373	-41,156	54,590	-7,707	-28,358	9,898	22,579	2,473	412,559
1971	733	-129	-755	1,798	-25,005	18,580	-7,251	-17,986	2,408	25,034	2,573	405,301
1972	-189	858	2,845	241	-19,891	8,227	-7,735	-17,296	6,538	24,927	1,475	375,185
1973	-2,510	478	2,107	2,841	-14,730	-5,275	-2,200	-13,261	2,698	30,537	685	433,993
1974	-618	1,386	1,576	4,192	-11,852	-22,163	-5,400	-4,835	14,810	22,655	249	421,336
1975	915	814	4,454	7,572	-12,340	-25,057	-4,134	6,555	23,463	-2,864	622	385,327
1976	-2,732	309	361	1,640	-20,801	-10,508	-3,655	3,819	34,215	-1,490	-1,158	376,971
1977	-4,009	614	-1,277	-886	-46,536	8,596	-3,789	384	32,344	15,507	-948	366,918
1978	-3,540	25	-109	-1,644	-33,424	415	-9,557	-3,701	31,987	20,698	-1,150	348,929
1979	-4,217	-225	-1,840	-2,219	-30,025	-15,317	-13,806	-3,510	39,212	33,241	-1,294	370,862
1980	-3,082	-1,082	-2,494	-4,165	-24,283	-34,919	-11,342	-4,382	46,933	40,165	-1,349	372,167
1981	-6,238	-783	-2,465	-4,766	-22,549	-19,665	-3,621	-520	40,243	21,565	-1,201	380,041
1982	261	-6	1,591	2,183	-28,169	19,614	1,498	1,743	3,961	-2,019	-657	322,634
1983	-1,092	799	3,861	2,296	-19,080	32,825	950	2,501	-26,246	4,029	-843	285,599
1984	-3,585	524	2,963	812	-10,943	36,691	-49	733	-30,591	3,505	-60	273,323
1985	-5,019	-13	-234	-1,559	-6,023	33,414	-1,755	-5,014	-9,568	-3,199	-1,030	281,275
1986	-4,682	-493	-739	-2,897	-3,020	42,916	-3,039	-7,020	-20,293	910	-1,643	302,352
1987 ¹	-5,118	490	-1,777	-2,545	-7,935	36,373	-4,958	-10,200	-23,207	19,651	-774	359,684
1988 ¹	-2,193	628	-1,559	-915	-8,791	11,221	-9,529	-16,140	-2,495	29,883	-110	372,885

¹ Preliminary data.

Source: Statistics Canada, *Quarterly Demographic Statistics*, Demography Division, Estimations Section.

positive balance in 1985. While this new trend has continued, British Columbia has regained much of the traditional appeal eclipsed in the years of the "migration rush" to Alberta. Notwithstanding British Columbia, all provinces¹⁸ except Ontario recorded negative migration in 1986, 1987 and 1988.

In recent years, Ontario has attracted migrants from each of the other provinces, but its appeal seems to be eroding. Gains from Alberta and the Maritimes have weakened considerably, while among British Columbians the fascination with Ontario seems to have already ended (Table 49). Ontario's net migration for 1989 could be nil or even negative if British Columbia continues to attract migrants.

Year after year, Quebec has lost out in interprovincial exchanges, certainly less now than in the late 1970s, but substantially nevertheless. The Atlantic provinces are in a negative phase of their cycle, but will doubtless recover a positive balance if economic activity slackens in one of Canada's major regions. This was the case when Ontario slowed down between 1972 and 1976, and also when Western Canada lost some of its pull in the early 1980s.

Of those who left Quebec in 1988, 67 per cent went to Ontario, compared with 68 per cent in 1987 and 71 per cent in 1986. Those who left Ontario in 1986, 1987 and 1988 were bound for more diversified destinations: 23 per cent to British Columbia, 24 per cent to Quebec and 18 per cent to Alberta.

British Columbia and Alberta are now very closely linked. No other neighbouring provinces in the country have such a close population exchange. Twenty percent of the population exchanges between these two provinces and other provinces in Canada occurs between these two provinces themselves. The interprovincial mobility rate within this region of some 5,300,000 persons is about 10 per 1,000¹⁹. In the Quebec-Ontario region of 16,000,000 inhabitants, mobility between neighbouring provinces is only 3 per 1,000. Table 50 is a summary table of interprovincial exchanges for 1986, 1987 and 1988.

Table 49. Net Interprovincial Migration Between Ontario and Other Regions of Canada

Province or region	1986	1987 ¹	1988 ¹
Alberta	17,217	12,427	2,911
British Columbia	5,920	1,617	-7,360
Quebec	5,199	7,580	6,800
Maritimes	9,201	8,717	3,352
Prairies	4,668	5,676	5,648

¹ Preliminary data.

Source: Statistics Canada, Demography Division: Interprovincial migration estimates based on Family Allowance data for 1987 and 1988, and on Revenue and Taxation data for 1986.

¹⁸ Prince Edward Island's migration balance is limited to a few hundred.

¹⁹ Number of exchanges across common borders divided by the total population.

Table 50. Interprovincial Migratory Movement: Three-Year Overview for 1986, 1987 and 1988

Number of moves: 1,034,921

	Province of destination											
	Newfoundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon	Northwest Territories
Newfoundland	0	515	6,006	2,056	1,037	22,460	982	303	3,407	1,588	168	345
Prince Edward Island	433	0	2,419	1,527	517	3,132	149	210	849	453	22	51
Nova Scotia	4,163	2,376	0	8,603	4,002	27,092	1,665	828	5,974	6,013	50	420
New Brunswick	1,537	1,660	9,423	0	8,131	18,553	1,874	627	3,888	2,490	49	127
Quebec	940	600	4,013	7,152	0	72,193	2,287	996	6,761	9,971	142	454
Ontario	12,575	3,093	20,108	14,191	52,614	0	17,515	7,691	39,891	51,465	758	1,570
Manitoba	883	215	1,915	1,377	2,540	26,301	0	9,179	14,867	17,781	198	935
Saskatchewan	331	208	1,112	766	1,585	14,897	11,166	0	34,901	17,626	404	826
Alberta	4,004	1,157	6,547	4,048	7,841	72,446	13,145	21,199	0	85,407	1,544	3,526
Northwest Territories	1,421	425	4,995	1,972	6,827	51,642	8,693	8,487	59,017	0	3,516	1,771
Yukon	73	20	86	155	136	684	230	215	1,282	3,498	0	210
Northwest Territories	514	118	487	155	533	2,581	959	727	4,032	2,918	511	0
IN	26,874	10,387	57,111	42,002	85,763	311,981	58,665	50,462	174,869	199,210	7,362	10,235
OUT	38,867	9,762	61,186	48,359	105,509	221,471	76,191	83,822	220,864	148,766	6,589	13,535
NET MIGRATION	-11,993	625	-4,075	-6,357	-19,746	90,510	-17,526	-33,360	-45,995	50,444	773	-3,300

Source: Statistics Canada, Demography Division: Interprovincial migration estimates based on Family Allowance files for 1987 and 1988, and on Income Tax files for 1986.

Appendix

Table A1. Percentage of Persons Age 65 and Over in Selected Industrialized Countries and Canada, 1950-2025

Country	1950	1960	1970	1975	1980	1985	1990	1995	2000	2010	2020	2025
Eastern Europe												
East Germany	10.6	13.7	15.5	16.2	15.9	13.3	12.7	12.9	13.7	16.3	16.8	18.0
Bulgaria	6.7	7.5	9.6	10.9	11.9	11.3	12.7	14.0	15.1	15.1	16.4	16.7
Hungary	7.3	9.0	11.5	12.6	13.4	12.5	13.5	14.4	14.9	15.5	18.3	19.0
Poland	5.2	5.8	8.3	9.5	10.1	9.4	10.0	11.1	12.0	11.9	15.3	17.1
Romania	5.3	6.7	8.6	9.6	10.3	9.4	10.2	11.4	12.5	12.8	13.8	14.5
Czechoslovakia	7.6	8.6	11.3	12.1	12.5	11.0	11.6	12.1	12.2	12.5	15.6	16.2
Yugoslavia	5.7	6.3	7.8	8.6	9.0	8.2	9.2	10.9	12.6	13.7	16.1	17.3
Western Europe												
West Germany	9.4	10.8	13.2	14.3	15.5	14.5	15.1	15.8	16.7	20.0	21.2	22.5
Austria	10.4	12.0	14.1	15.0	15.5	14.1	14.7	15.0	15.1	16.7	18.4	19.7
Belgium	11.1	12.0	13.4	13.9	14.3	13.4	14.3	15.1	15.8	15.8	18.3	19.8
France	11.4	11.6	12.9	13.5	14.0	12.4	13.0	13.9	14.7	14.8	18.0	19.3
Netherlands	7.7	9.0	10.2	10.9	11.5	11.8	12.6	13.1	13.7	15.6	20.2	22.2
United Kingdom	10.7	11.7	12.9	14.0	15.1	15.1	15.6	15.5	15.3	15.7	17.8	18.7
Switzerland	9.6	10.1	11.4	12.6	13.8	14.0	14.8	15.7	16.7	19.6	22.9	23.8
Northern Europe												
Denmark	9.1	10.6	12.3	13.4	14.4	14.9	15.4	15.4	15.4	17.5	21.2	22.2
Finland	6.7	7.2	9.2	10.6	12.0	12.3	13.0	13.7	14.1	15.4	19.9	21.0
Norway	9.7	11.1	12.9	13.7	14.8	15.5	16.2	16.0	15.3	15.4	18.9	20.2
Sweden	10.3	12.0	13.7	15.1	16.3	16.9	17.7	17.6	17.2	18.7	21.8	22.2
Southern Europe												
Spain	7.3	8.2	9.8	10.0	10.7	11.1	11.7	12.6	13.6	13.8	14.7	15.7
Greece	6.8	8.3	11.1	12.2	13.1	13.1	13.4	14.7	16.1	16.7	17.2	17.8
Italy	8.3	9.3	10.7	12.1	13.5	13.0	14.1	15.1	16.1	17.2	18.8	19.6
Portugal	7.0	8.0	9.7	9.9	10.5	10.5	11.1	11.8	12.3	12.4	14.3	15.7
Other industrial- ized countries												
Australia	8.1	8.5	8.3	8.7	9.6	10.1	10.8	11.2	11.3	12.0	14.6	15.9
United States	8.1	9.2	9.8	10.5	11.3	11.7	12.2	12.3	12.0	12.3	15.4	17.2
Japan	4.9	5.7	7.1	7.9	9.0	10.0	11.4	13.2	15.1	18.0	20.8	20.3
New Zealand	9.0	8.6	8.5	8.7	10.0	10.4	10.8	11.1	10.9	11.9	14.7	16.3
Canada	7.7	7.5	7.9	8.5	9.7	10.4	11.3	11.9	12.2	13.4	16.9	18.8

Source: United Nations, World Population Prospects, Estimates and Projections as Assessed in 1984.

Table A2. Age-Specific First Marriage Rates (per 1,000) for Female Cohorts, Canada, 1942-1972

Age	Year of Birth																															
	1972	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947	1946	1945	1944	1943	1942	
	Year of 15th birthday																															
Female																																
15	0.2	0.2	0.3	0.3	0.5	0.5	0.5	0.5	0.5	1.1	1.8	2.2	2.5	2.8	3.5	3.5	3.4	3.5	3.5	3.2	3.3	3.4	3.4	3.4	4.1	4.2	5.4	5.0	5.4	5.8	6.2	5.9
16		2.2	2.5	3.1	3.6	3.9	4.6	5.0	5.9	6.6	7.8	9.2	11.4	13.9	15.8	17.4	18.6	17.6	17.7	16.7	15.7	16.5	16.8	17.6	19.5	21.6	21.6	22.4	25.7	26.7	26.5	
17			5.6	6.2	7.6	8.5	9.6	11.1	12.8	15.3	17.2	19.7	23.7	27.4	33.0	36.1	39.9	41.8	40.1	40.6	38.6	39.7	40.8	41.0	44.8	48.7	45.4	48.5	53.5	56.8	59.2	
18				18.6	22.3	24.7	25.8	29.8	34.6	39.1	45.4	49.8	54.6	61.6	68.1	77.6	82.3	87.0	92.3	85.2	82.7	82.0	81.7	84.5	88.0	93.6	87.2	86.2	94.3	101.6	104.6	
19					33.8	39.3	41.1	44.4	49.8	56.8	64.2	70.5	74.5	79.6	85.3	91.3	101.4	106.5	115.8	119.7	113.2	108.7	108.6	110.3	116.5	123.1	109.4	106.7	112.7	122.0	120.2	
20						50.4	53.6	58.1	61.6	67.1	76.0	81.4	87.4	90.0	92.4	96.2	97.2	108.7	116.2	123.3	130.3	126.8	121.5	126.1	132.8	141.3	124.7	118.5	124.9	125.7	124.0	
21							63.5	65.6	69.7	74.3	75.6	81.8	84.7	89.3	89.5	90.8	90.4	91.1	102.5	109.0	117.5	125.7	128.8	126.7	134.6	143.0	132.1	122.9	124.5	127.3	119.5	
22							68.8	72.1	73.1	74.1	74.3	76.7	80.0	79.0	79.4	76.5	77.5	79.1	86.2	89.9	95.4	100.7	101.3	105.8	115.9	105.1	100.7	103.0	104.4	95.1		
23								69.7	67.6	69.5	68.4	67.1	68.4	67.5	66.5	64.8	62.0	63.2	61.6	66.5	68.2	71.0	74.0	73.4	83.0	76.3	74.1	78.2	78.0	73.6		
24									62.9	60.3	59.6	58.2	56.2	55.7	53.0	52.9	49.9	48.1	47.7	46.8	50.4	50.6	51.0	51.8	49.9	53.4	50.6	53.6	55.9	54.2		
25										53.9	49.9	49.8	47.4	44.5	43.3	42.2	40.8	38.4	37.0	36.5	35.7	36.9	36.5	36.3	36.5	38.2	37.7	38.1	39.2	39.0		
26											41.3	39.7	39.7	39.9	37.4	35.4	33.7	31.6	30.2	29.3	27.8	28.2	27.2	27.2	26.1	25.7	27.7	25.7	27.9	28.2	28.1	
27												33.5	30.7	30.2	29.1	27.0	25.9	24.5	24.3	22.2	21.6	21.0	20.3	20.0	18.8	20.1	18.9	19.9	21.0	21.0		
28													26.3	22.9	23.4	22.8	20.8	19.7	18.6	18.0	16.9	16.3	15.6	14.9	15.1	15.7	14.8	15.5	14.9	15.3		
29														20.5	17.8	18.5	17.3	16.3	15.7	14.8	13.9	12.9	12.4	12.0	11.1	11.9	11.7	11.4	11.6	12.6		
30															15.9	14.3	14.5	14.0	12.5	12.0	11.4	10.8	9.9	9.4	9.3	9.4	9.5	8.9	9.2	9.4		
31																11.9	10.7	10.8	10.6	9.7	9.0	8.6	7.8	7.5	6.9	7.4	7.5	7.3	7.3	7.8		
32																	9.4	8.1	8.4	8.0	7.6	7.2	6.5	6.2	5.9	6.1	5.9	5.9	5.9	6.2		
33																		7.5	6.7	6.8	6.5	5.9	5.5	5.5	5.0	4.9	4.7	4.7	5.2	4.8		
34																			5.9	5.6	5.4	5.2	4.6	4.4	4.1	4.0	4.0	4.1	4.1	3.9		
35																				5.2	4.3	4.2	4.0	3.6	3.3	3.6	3.3	3.4	3.3	3.7		
36																					3.9	3.5	3.3	2.9	3.0	3.1	2.5	2.7	2.7	2.6		
37																						3.2	2.6	2.5	2.2	2.3	2.0	2.3	2.0	2.2		
38																								2.5	2.3	2.3	2.3	2.0	2.1	2.0	2.2	
39																									2.1	1.9	2.0	1.8	1.7	1.4	1.6	
40																										1.7	1.7	1.5	1.3	1.3	1.5	
41																											1.3	1.3	1.1	1.2	1.1	
42																												1.3	1.1	1.2	1.1	
43																													1.1	0.9		
44																													1.3	0.9	1.0	
45																															0.9	

Source: Statistics Canada, unpublished data.

Table A3. Age-Specific First Marriage Rates (per 1,000) for Male Cohorts, Canada, 1942-1970

Age	Year of Birth																												
	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947	1946	1945	1944	1943	1942
	Year of 17th birthday																												
1987	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961	1960	1959	
Male																													
17	0.6	0.6	0.6	0.6	0.7	0.9	1.2	1.7	1.6	2.0	2.5	3.3	3.9	4.5	4.9	4.7	4.3	4.3	4.0	3.8	3.9	3.9	4.0	3.8	4.0	3.8	4.4	4.9	4.9
18		2.9	3.4	3.7	4.0	4.5	6.1	6.8	8.6	9.6	11.1	13.0	15.0	18.3	19.7	20.6	21.9	18.9	17.9	16.9	17.8	18.1	18.3	15.9	15.3	17.1	18.0	19.2	
19			8.6	9.6	10.2	11.3	13.4	16.7	19.9	22.7	25.3	28.7	32.4	36.6	41.3	44.7	48.0	48.7	44.2	41.7	39.8	41.0	44.2	39.2	37.7	38.1	43.1	42.6	
20				18.1	21.1	22.1	24.8	29.4	35.4	40.7	44.9	49.7	53.4	58.8	62.0	71.3	77.6	81.7	83.6	77.3	73.6	73.4	77.4	82.8	73.3	70.6	71.7	73.7	74.5
21					31.8	35.3	38.2	42.4	48.3	55.2	61.8	68.1	71.6	75.0	79.4	82.9	96.9	100.2	109.5	116.5	114.0	120.1	127.6	118.1	112.9	114.0	116.8	111.3	
22						45.7	50.6	53.1	57.8	62.4	70.0	74.3	80.5	82.4	83.2	86.3	92.3	102.6	110.4	118.5	127.1	130.3	140.0	128.6	128.2	130.6	130.6	122.6	
23							58.9	61.5	64.4	67.4	68.6	74.6	77.7	81.3	80.4	81.6	84.7	87.5	96.4	101.0	118.3	116.1	130.7	121.1	119.6	128.1	131.3	121.9	
24								63.8	65.5	67.0	68.2	69.6	70.4	72.1	73.5	72.6	72.5	73.7	75.2	82.4	87.3	92.5	97.3	98.3	98.5	106.0	111.0	108.3	
25									62.7	62.0	62.8	63.9	61.2	62.4	63.8	63.2	62.1	61.4	62.5	61.9	67.0	68.9	72.7	75.3	78.1	75.2	80.8	84.8	85.5
26										53.9	53.8	55.5	52.8	52.7	53.5	52.2	50.9	50.2	48.8	49.8	48.7	51.4	52.6	55.5	58.5	56.2	59.7	62.0	64.3
27											48.1	45.9	46.4	45.0	42.7	42.5	42.4	41.5	40.4	39.0	38.9	38.2	39.8	40.7	42.4	42.3	42.1	44.9	46.7
28												39.2	36.8	37.8	36.2	35.2	34.4	33.6	32.9	31.8	31.5	31.3	29.7	30.7	31.1	31.3	31.2	33.5	34.0
29													32.9	30.6	31.4	29.8	29.1	27.5	27.4	26.4	25.0	23.7	23.6	23.2	24.1	23.3	23.9	25.9	24.7
30														26.6	25.1	24.4	23.6	23.0	21.8	21.0	20.6	19.5	18.9	18.3	18.3	18.5	18.6	18.9	19.5
31															21.3	18.6	19.2	18.7	18.0	16.8	16.3	15.7	14.7	14.3	14.6	14.2	14.1	14.5	14.6
32																16.7	15.3	15.5	15.2	13.4	13.3	12.4	12.0	11.3	11.3	11.2	11.3	11.3	11.4
33																	13.6	12.2	12.1	11.6	11.2	10.3	9.8	9.4	9.3	8.7	9.2	8.7	9.3
34																		10.7	9.7	9.7	9.0	8.8	8.0	7.9	7.6	7.3	7.1	7.2	7.4
35																			9.0	7.8	7.8	7.6	6.9	6.5	6.3	6.3	6.1	6.0	6.0
36																				7.4	6.7	6.3	5.9	5.6	5.7	5.2	4.6	5.0	4.8
37																					5.6	5.1	4.7	4.5	4.6	4.0	4.3	4.2	4.3
38																						4.8	4.0	3.5	3.7	3.5	3.4	3.4	3.4
39																							3.8	3.8	3.4	3.3	2.9	2.8	3.1
40																								3.4	3.1	2.5	2.8	2.4	2.3
41																									2.8	2.1	2.2	2.1	1.8
42																										2.4	2.1	2.0	1.8
43																											2.0	1.9	1.7
44																												1.9	1.6
45																													1.6

Source: Statistics Canada, unpublished data.

Table A4. Fertility Rates and Total Fertility Rates¹ by Birth Order and Age of Mother, Quebec and the Rest of Canada², 1981-1987

Birth Order	Year	15-19		20-24		25-29		30-34		35-39		40-44		Total Fertility Rate	
		Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada
1	1981	13.1	25.6	57.4	56.1	55.4	49.2	16.6	17.3	3.5	3.7	0.5	0.5	732.3	761.8
	1982	13.9	25.7	54.4	56.3	50.7	49.9	20.0	23.1	3.6	4.0	0.5	0.5	711.0	797.5
	1983	12.7	24.0	53.1	54.8	51.3	51.0	16.3	19.9	3.8	4.5	0.5	0.5	687.8	773.8
	1984	12.6	21.7	50.0	51.1	51.1	51.3	16.2	21.5	4.0	4.9	0.5	0.6	672.0	755.8
	1985	12.7	22.2	48.0	49.6	51.2	51.2	17.1	21.4	4.0	4.8	0.5	0.6	667.3	748.4
	1986	13.2	21.8	48.0	48.3	50.5	50.1	17.9	21.4	4.4	5.1	0.5	0.7	672.1	736.7
	1987	13.5	20.9	54.2	45.8	49.9	49.3	18.0	21.5	4.2	5.4	0.6	0.7	657.0	718.4
2	1981	1.7	4.62	25.1	33.2	54.1	48.5	28.1	25.7	6.2	5.9	0.6	0.6	578.8	592.8
	1982	1.6	4.62	23.5	32.5	50.4	48.0	32.7	33.7	5.8	6.3	0.6	0.7	573.2	628.7
	1983	1.6	4.41	22.6	31.7	48.9	48.3	25.4	28.2	5.4	6.8	0.6	0.8	521.7	601.0
	1984	1.6	3.93	22.2	29.9	50.0	48.1	27.0	29.0	5.7	7.4	0.6	0.7	535.2	595.2
	1985	1.7	4.2	21.0	30.0	48.3	49.7	26.5	30.8	5.8	7.8	0.6	0.8	519.4	616.2
	1986	1.7	4.0	19.2	26.7	46.7	49.3	25.7	31.9	5.7	8.2	0.7	0.8	498.2	614.4
	1987	2.1	4.2	20.0	27.1	44.1	48.4	25.2	32.3	5.8	8.8	0.7	1.0	489.2	608.9
3	1981	0.2	0.5	4.6	8.8	17.7	20.3	16.9	16.1	4.6	4.9	0.6	0.7	222.8	256.3
	1982	0.1	0.5	4.5	8.8	16.1	18.7	18.7	20.7	4.6	5.6	0.6	0.6	222.9	282.7
	1983	0.1	0.5	4.0	8.5	15.0	20.3	14.2	16.8	4.1	5.3	0.5	0.6	190.1	261.0
	1984	0.1	0.4	3.8	7.7	14.5	19.5	14.0	17.2	4.3	5.4	0.6	0.7	186.5	255.2
	1985	0.2	0.5	3.7	8.2	14.1	20.2	13.4	17.9	4.3	5.9	0.5	0.7	180.6	266.9
	1986	0.2	0.5	3.4	7.9	13.3	20.0	12.5	18.4	4.3	6.1	0.6	0.8	171.5	267.6
	1987	0.2	0.5	4.2	7.8	13.6	19.6	12.5	18.5	4.0	6.5	0.6	0.8	175.4	268.3
4	1981	-	0.1	0.6	1.7	3.0	5.5	4.6	5.8	2.3	2.7	0.4	0.5	54.1	80.7
	1982	-	-	0.6	1.7	2.9	5.5	5.4	7.5	2.2	2.8	0.4	0.5	57.6	90.0
	1983	-	-	0.6	1.6	2.9	5.4	3.9	6.0	2.0	2.8	0.3	0.5	48.5	81.3
	1984	-	-	0.5	1.4	2.7	5.4	3.7	5.9	1.8	2.8	0.3	0.5	45.1	80.1
	1985	-	-	0.5	1.5	2.5	5.4	3.6	6.2	1.8	2.9	0.3	0.5	43.4	82.9
	1986	-	-	0.5	1.6	2.4	5.4	3.4	6.2	1.7	2.9	0.4	0.5	42.0	82.7
	1987	-	-	0.8	1.7	3.0	5.6	4.1	6.2	1.9	3.0	0.4	0.5	50.7	85.3
5 and over	1981	-	-	0.1	0.4	0.8	1.9	1.6	3.2	1.6	2.6	0.6	0.9	23.0	45.3
	1982	-	-	0.1	0.4	0.8	2.0	1.7	3.9	1.4	2.6	0.5	0.9	22.7	48.8
	1983	-	-	0.1	0.4	0.7	1.9	1.4	3.1	1.2	2.3	0.5	0.8	19.8	42.2
	1984	-	-	-	0.3	0.7	1.7	1.4	2.8	1.2	2.2	0.4	0.7	18.6	40.0
	1985	-	-	-	0.4	0.7	1.9	1.2	3.0	1.0	2.1	0.3	0.7	16.4	40.8
	1986	-	-	-	0.4	0.7	1.9	1.3	3.0	1.1	2.1	0.4	0.7	17.7	40.0
	1987	-	-	-	0.6	1.1	2.3	1.7	3.3	1.3	2.3	0.4	0.7	23.7	47.2
All orders	1981	15.0	30.8	87.8	100.2	131.0	125.4	67.8	68.1	18.2	19.8	2.7	3.2	1611.0	1736.9
	1982	15.6	30.8	83.1	99.7	120.9	125.9	78.5	88.9	17.6	21.1	2.6	3.2	1594.4	1847.7
	1983	14.3	28.9	80.4	97.0	118.8	126.9	61.2	74.0	16.5	22.0	2.4	3.2	1467.9	1759.3
	1984	14.3	26.0	76.5	90.4	119.0	126.0	62.3	76.4	17.0	22.9	2.4	3.2	1457.4	1726.3
	1985	14.6	26.9	73.2	89.7	116.8	128.4	61.8	79.3	16.9	23.5	2.2	3.3	1427.1	1855.2
	1986	15.1	26.3	71.1	86.9	113.6	126.7	60.8	80.0	17.2	24.4	2.6	3.5	1401.5	1741.4
	1987	15.8	25.6	70.2	83.0	111.7	125.2	61.5	81.8	17.2	26.0	2.7	3.7	1396.0	1728.1

¹ Based on 1981 postcensal estimates.

² Excludes Newfoundland.

Table A5. Contracted Life Table(1), Canada, 1985-1987 (adjusted)

Age	l_x	p_x	q_x	d_x	L_x	T_x	e_x
Male							
0-1	100,000	.99142	.00858	858	99,252	7,330,926	73.31
1-4	99,142	.99810	.00190	188	396,139	7,231,674	72.94
5-9	98,954	.99899	.00101	100	494,484	6,835,535	69.08
10-14	98,854	.99840	.00160	158	493,964	6,341,051	64.15
15-19	98,696	.99516	.00484	478	492,393	5,847,087	59.24
20-24	98,218	.99384	.00616	605	489,585	5,354,694	54.52
25-29	97,613	.99402	.00598	584	486,605	4,865,109	49.84
30-34	97,029	.99351	.00649	630	483,599	4,378,504	45.13
35-39	96,399	.99225	.00775	747	480,215	3,894,905	40.40
40-44	95,652	.98852	.01148	1,098	475,715	3,414,690	35.70
45-49	94,554	.98107	.01893	1,790	468,665	2,938,975	31.08
50-54	92,764	.96761	.03239	3,005	456,916	2,470,310	26.63
55-59	89,759	.94633	.05367	4,817	437,587	2,013,394	22.43
60-64	84,962	.91530	.08470	7,195	407,841	1,575,807	18.55
65-69	77,747	.86787	.13213	10,273	364,357	1,167,966	15.02
70-74	67,474	.80106	.19894	13,423	305,030	803,609	11.91
75-79	54,051	.70766	.29234	15,801	231,361	498,579	9.22
80-84	38,250	.58615	.41375	15,286	151,062	267,218	6.99
85-89	22,424	.44073	.55927	12,541	78,831	116,156	5.18
90-94	9,883	.30102	.69898	6,908	29,649	37,325	3.78
95-99	2,975	.09546	.90454	2,691	7,455	7,676	2.58
100	284	0.0	1.00000	284	222	222	0.78
Female							
0-1	100,000	.99322	.00678	678	99,415	7,994,715	79.95
1-4	99,322	.99844	.00156	155	396,909	7,895,300	79.49
5-9	99,167	.99918	.00082	81	495,613	7,498,391	70.67
10-14	99,086	.99907	.00093	92	495,229	7,002,778	70.67
15-19	98,994	.99811	.00189	187	494,525	6,507,549	65.74
20-24	98,807	.99908	.00192	190	493,561	6,013,024	60.86
25-29	98,617	.99788	.00212	209	492,580	5,519,463	55.97
30-34	98,408	.99720	.00280	276	491,386	5,026,883	51.08
35-39	98,132	.99592	.00408	400	489,739	4,535,497	46.22
40-44	97,732	.99307	.00693	677	487,109	4,045,758	41.40
45-49	97,055	.98850	.01150	1,116	482,703	3,558,649	36.67
50-54	95,939	.98155	.01845	1,770	475,573	3,075,946	32.06
55-59	94,169	.97178	.02822	2,657	464,632	2,600,373	27.61
60-64	91,512	.95645	.04355	3,985	448,247	2,135,741	23.34
65-69	87,527	.93201	.06799	5,951	423,703	1,687,494	19.28
70-74	81,576	.89222	.10778	8,702	387,287	1,263,791	15.49
75-79	72,784	.82528	.17472	12,717	333,847	876,504	12.04
80-84	60,067	.72133	.27867	16,739	259,937	542,657	9.03
85-89	43,328	.57109	.42891	18,584	170,045	282,720	6.53
90-94	24,744	.40543	.59457	14,712	83,629	112,675	4.55
95-99	10,032	.13018	.86892	8,726	28,001	29,046	2.90
100	1306	0.0	1.00000	1,306	1,045	1,045	0.80

¹ 1986 census denominator adjusted for undercoverage.

Source: Based on the 1985-1987 Life Table, available on request from the Health Division, Statistics Canada.

Table A6. Life Expectancy and Increases in Life Expectancy by Sex, Canada, 1931-1986

Year	Life Expectancy			Increases in Life Expectancy Over the Preceding 5 years	
	Male	Female	Difference	Male	Female
1931	60.00	62.06	2.06	-	-
1936	61.34	63.66	2.32	1.34	1.60
1941	63.04	66.31	3.27	1.70	2.65
1946	65.06	68.62	3.56	2.02	2.31
1951	66.40	70.90	4.50	1.34	2.28
1956	67.68	72.95	5.27	1.28	2.05
1961	68.44	74.26	5.82	0.76	1.31
1966	68.73	75.25	6.52	0.29	0.99
1971	69.40	76.45	7.05	0.67	1.20
1976	70.26	77.70	7.44	0.86	1.25
1981	71.88	79.06	7.18	1.62	1.36
1986	73.04	79.73	6.69	1.16	0.67

Source: Dhruva Nagnur, *Longevity and Historical Life Table, 1921-1981*, Statistics Canada, Ottawa, 1986.

Table A7. Male Excess Mortality¹ by Age, All Causes of Death, Canada, 1921-1986

Age	1921	1926	1931	1936	1941	1946	1951	1956	1961	1966	1971	1976	1981	1986
Under age one	1.27	1.25	1.27	1.24	1.29	1.26	1.26	1.22	1.29	1.28	1.32	1.26	1.29	1.24
1-4	1.14	1.10	1.11	1.15	1.18	1.18	1.17	1.14	1.30	1.22	1.13	1.33	1.20	1.25
5-9	1.15	1.19	1.29	1.12	1.31	1.18	1.43	1.60	1.50	1.50	1.50	1.33	1.00	1.50
10-14	1.11	1.17	1.00	1.17	1.40	1.38	1.60	1.50	2.00	2.00	1.67	2.00	2.00	1.50
15-19	1.15	1.00	1.14	1.11	1.33	1.31	1.56	2.40	2.40	2.60	2.33	2.80	2.80	2.50
20-24	1.00	0.88	1.00	0.93	1.30	1.17	1.90	2.83	2.83	3.60	3.00	3.60	3.20	3.50
25-29	0.98	0.85	0.89	0.94	1.08	1.05	1.64	2.00	2.14	2.67	2.50	3.00	2.33	3.00
30-34	0.84	0.80	0.83	0.84	1.00	1.05	1.40	1.80	1.78	1.89	1.78	1.88	2.33	2.33
35-39	0.85	0.86	0.88	0.89	1.12	1.07	1.25	1.53	1.64	1.69	1.69	1.67	1.80	1.78
40-44	0.95	0.97	1.08	1.02	1.11	1.22	1.30	1.42	1.70	1.70	1.71	1.88	1.75	1.71
45-49	1.03	0.99	1.09	1.13	1.22	1.23	1.42	1.57	1.81	1.73	1.90	1.87	1.81	1.63
50-54	0.96	1.06	1.19	1.11	1.31	1.34	1.60	1.68	1.81	1.94	2.02	2.07	1.85	1.79
55-59	1.13	1.16	1.15	1.19	1.30	1.35	1.59	1.76	1.90	2.00	2.03	2.13	1.97	1.98
60-64	1.11	1.13	1.11	1.20	1.31	1.43	1.52	1.62	1.88	1.97	2.08	2.13	2.00	2.00
65-69	1.01	1.09	1.16	1.16	1.23	1.35	1.41	1.60	1.67	1.86	2.01	2.03	2.02	1.99
70-74	1.08	1.16	1.12	1.15	1.24	1.22	1.31	1.44	1.58	1.72	1.83	1.95	1.92	1.90
75-79	1.11	1.09	1.05	1.11	1.20	1.21	1.20	1.20	1.38	1.48	1.64	1.73	1.84	1.80
80-84	1.09	1.06	1.06	1.12	1.13	1.09	1.12	1.20	1.24	1.32	1.44	1.54	1.63	1.62
85	1.01	0.92	1.07	1.04	1.05	1.06	1.11	1.12	1.09	1.16	1.22	1.27	1.33	1.29

¹ Defined as the ratio of the male death rate to the female death rate.

Source: Statistics Canada, *Vital Statistics*, Catalogue No. 84-204, Volume 1.

Table A8. Probability of Survival (in %) by Sex and Age Groups, Canada, 1921-1986

	0-1	1-14	15-29	30-64	65-80	80-90
Male						
1921	90.8	94.5	94.8	70.7	39.2	16.1
1926	91.6	95.2	95.5	72.3	40.4	16.5
1931	91.5	95.5	95.5	70.4	39.1	15.6
1936	92.5	95.9	96.3	70.1	39.2	14.9
1941	94.0	96.8	96.5	70.6	38.2	14.9
1946	94.9	97.7	97.1	71.8	40.1	17.0
1951	95.8	98.3	97.5	71.7	41.0	16.5
1956	96.7	98.7	97.7	72.7	41.5	18.3
1961	97.0	98.9	97.9	73.3	42.1	19.8
1966	99.5	99.0	97.7	73.1	42.2	20.1
1971	98.0	99.1	97.6	73.9	42.8	22.0
1976	98.6	99.2	97.6	74.8	44.1	22.0
1981	98.9	99.4	97.9	77.6	46.8	24.5
1986	99.1	99.6	98.3	80.1	49.2	25.8
Female						
1921	98.7	95.1	94.8	71.3	41.9	18.0
1926	93.1	95.7	95.3	73.9	44.7	17.1
1931	93.1	96.1	95.4	72.3	42.9	17.7
1936	94.0	96.5	96.2	73.3	43.9	17.5
1941	95.2	97.4	97.1	75.8	45.0	18.2
1946	95.9	98.1	97.7	78.1	47.9	19.6
1951	96.6	98.7	98.6	80.4	49.9	21.0
1956	91.3	99.0	99.0	82.7	52.9	23.2
1961	97.7	99.3	99.1	84.2	55.8	24.8
1966	98.0	99.3	99.2	84.9	58.9	27.6
1971	98.5	99.4	99.1	85.7	61.7	32.2
1976	98.9	99.5	99.2	86.7	64.2	34.8
1981	99.2	99.6	99.3	87.8	66.9	39.0
1986	99.3	99.7	99.4	88.9	68.6	41.2

Source: Statistics Canada, *Longevity and Chronological Life Tables, Canada and the Provinces*, Catalogue 89-506.

Table A9. Male Excess Mortality (per 100) for Ischemic Heart Disease, 1969 and 1987

Age group	1969	1987
45-49	573	529
50-54	517	476
55-59	395	388
60-64	274	329
65-69	248	265
70-74	195	232
75-79	164	183
80-84	140	161
85 +	118	122

Source: Based on Statistics Canada, *Vital Statistics, Causes of Death*, Catalogue No. 84-203.

Table A10. Age-Specific Mortality Sex Ratio¹, Cancer, Canada, 1955 and 1987

Age Group	1955	1987
0-4	1.17	1.33
5-9	1.36	1.31
10-14	1.18	1.37
15-19	1.50	1.61
20-24	1.31	1.76
25-29	1.18	1.05
30-34	0.74	0.84
35-39	0.65	0.79
40-44	0.51	0.72
45-49	0.67	0.88
50-54	0.92	1.02
55-59	1.08	1.34
60-64	1.24	1.52
65-69	1.36	1.71
70-74	1.42	1.85
75-79	1.40	1.92
80-84	1.42	2.34

¹ The ratio of male mortality to female mortality.

Source: Based on Statistics Canada, *Vital Statistics, Causes of Death*, Catalogue No. 84-203.

Table A11. The Immigrant Population by Place of Birth, Canada, 1968-1987

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
EUROPE	118,791	87,842	75,006	52,733	51,175	70,080	84,780	68,733	49,470	40,967
Great Britain	33,814	28,790	23,688	14,230	16,637	23,533	33,088	29,454	19,257	16,634
Portugal	8,720	7,917	8,594	9,776	9,280	14,417	17,268	9,158	6,194	4,238
France	5,370	3,612	2,958	2,059	1,880	2,411	2,811	2,831	2,415	2,090
Greece	7,952	7,106	6,440	4,822	4,008	5,800	5,654	3,954	2,429	1,874
Italy	20,880	10,685	8,659	5,937	4,847	6,176	5,818	4,919	4,008	3,088
Poland	1,854	1,563	1,403	1,527	1,664	1,629	1,373	1,191	1,366	1,293
Other	40,201	28,163	23,264	14,382	12,859	16,114	18,768	17,226	13,801	11,750
AFRICA	7,002	5,953	4,017	3,463	8,504	9,977	12,792	11,715	8,617	6,595
ASIA	23,775	24,451	23,682	24,230	25,938	46,777	55,290	52,024	46,482	32,904
Philippines	2,762	3,138	3,305	4,213	4,113	6,886	9,897	7,688	6,109	6,101
India	4,675	6,736	7,089	6,301	6,746	11,672	16,016	13,401	8,562	6,772
Hong Kong	3,353	3,353	2,250	2,581	3,396	9,155	7,673	6,438	6,442	3,903
China	5,401	5,610	3,397	3,694	3,813	6,842	6,581	6,235	6,003	4,037
Other	7,584	5,614	7,641	7,441	7,870	12,222	15,123	18,262	19,366	12,091
NORTH AND CENTRAL AMERICA	18,482	20,927	22,670	22,508	21,137	23,861	25,147	19,268	16,494	12,755
United States	17,076	19,258	20,859	20,723	19,176	21,391	22,454	16,729	14,278	10,723
CARIBBEAN AND BERMUDA	9,021	13,925	13,371	11,300	8,774	19,809	24,441	18,790	15,066	11,822
AUSTRALASIA	4,145	3,523	3,462	2,182	1,646	1,893	1,928	1,574	1,367	1,147
SOUTH AMERICA	2,368	4,158	4,506	4,598	4,036	10,353	12,204	13,102	10,496	7,774
OCEANIA	..	..	..	..	..	..	1,882	2,675	1,437	950
OTHER	390	752	999	886	796	1,450	1	..	..	..
TOTAL	183,974	161,531	147,713	121,900	122,006	184,200	218,465	187,881	149,429	114,914

See note at end of this table.

Table A11. The Immigrant Population by Place of Birth, Canada, 1968-1987 - Concluded

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
EUROPE	30,003	32,633	40,210	44,784	44,356	23,664	20,581	18,530	22,518	36,486	38,598
Great Britain	10,698	11,806	16,445	18,912	14,525	4,945	4,657	3,998	4,612	7,650	7,476
Portugal	3,420	3,742	4,222	3,292	2,308	1,373	869	917	1,981	5,904	3,976
France	1,322	1,547	1,461	1,681	1,821	1,237	970	994	1,124	1,486	1,809
Greece	1,324	1,187	1,044	924	884	617	578	579	555	750	590
Italy	2,647	2,134	1,873	2,057	1,496	879	892	733	785	1,123	955
Poland	1,153	1,263	1,395	4,093	9,259	5,374	4,640	3,642	5,283	7,132	9,308
Other	9,439	10,954	13,770	13,825	14,063	9,239	7,975	7,667	11,480	12,441	14,484
AFRICA	4,561	4,412	5,383	5,901	5,196	3,913	3,851	3,912	5,189	9,048	9,497
ASIA	25,332	51,740	73,026	50,759	43,863	38,183	42,730	39,438	42,417	69,146	82,334
Philippines	4,368	3,927	6,147	5,978	5,295	4,597	3,858	3,183	4,203	7,420	8,636
India	6,077	5,486	9,531	9,415	8,858	7,810	6,082	4,517	7,481	10,635	11,864
Hong Kong	2,825	3,548	3,874	4,039	4,452	4,238	5,013	5,121	4,318	12,618	18,033
China	3,181	5,821	8,965	9,798	6,295	5,321	5,769	5,166	4,178	6,611	7,784
Other	8,881	32,958	44,509	21,529	18,963	16,217	22,008	21,451	22,237	31,862	36,017
NORTH AND CENTRAL AMERICA	9,713	9,128	9,442	10,183	10,030	10,200	10,223	10,898	12,412	13,691	11,435
United States	8,254	7,821	8,098	8,695	7,841	6,136	5,727	5,614	6,094	6,547	5,552
CARIBBEAN AND BERMUDA	8,330	6,535	7,515	8,797	8,717	7,258	5,696	6,240	8,948	11,210	9,440
AUSTRALASIA	944	1,068	1,215	1,020	758	394	430	399	449	540	525
SOUTH AMERICA	6,682	5,810	5,381	6,114	6,892	4,825	4,046	4,273	6,546	10,833	7,178
OCEANIA	724	736	944	1,024	1,183	720	599	612	740	1,144	1,135
OTHER	24	34	1	36	152	..	83	..	..	..	..
TOTAL	86,313	112,096	143,117	128,618	121,147	89,157	88,239	84,302	99,219	152,098	160,143 ^P

Source: Employment and Immigration, *Immigration Statistics*, 1968-1987.

^P Preliminary data.

**Table A12. Comparison of Annual Numbers of Immigrants (1966, 1971 and 1976)
With Numbers Enumerated in 1981 by Age Group, Canada**

Age	Immigrants in 1966	Probability of survival (1976 table)	Age in 1981	Anticipated in 1981	Respondents in 1981
0-4	20,630	.9921	10-14	20,467	16,755
5-9	17,292	.9892	15-19	17,105	10,980
10-14	11,514	.9854	20-24	11,346	8,040
15-19	14,713	.9835	25-29	14,470	12,465
20-24	36,212	.9823	30-34	35,571	20,650
25-29	33,287	.9776	35-39	32,541	18,420
30-34	20,695	.9963	40-44	19,998	12,070
35-39	13,681	.9472	45-49	12,959	7,720
40-44	8,689	.9177	50-54	7,974	4,985
45-49	4,981	.8741	55-59	4,354	2,635
50-54	3,735	.8122	60-64	3,034	2,120
55-59	3,078	.7260	65-69	2,235	1,480
60-64	2,336	.6121	70-74	1,430	890
65-69	1,941	.4682	75-79	909	400
70 +	1,959	.4892	80 +	958	210
Total	194,743			185,351	120,765*

*: the total includes 885 respondents in the 5-9 age group.

Age	Immigrants in 1971	Probability of survival (1976 table)	Age in 1981	Anticipated in 1981	Respondents in 1981
0-4	10,159	.9955	10-14	10,113	625
5-9	9,461	.9949	15-19	9,413	10,185
10-14	6,888	.9909	20-24	6,825	7,580
15-19	9,200	.9887	25-29	9,096	5,270
20-24	25,720	.9892	30-34	25,442	9,715
25-29	23,330	.9878	35-39	23,045	19,595
30-34	12,370	.9828	40-44	12,157	14,475
35-39	7,294	.9731	45-49	7,098	8,355
40-44	4,281	.9571	50-54	4,097	4,810
45-49	2,825	.9333	55-59	2,637	2,785
50-54	2,124	.8979	60-64	1,907	2,020
55-59	2,117	.8471	65-69	1,793	1,310
60-64	2,312	.7752	70-74	1,782	1,520
65-69	1,824	.6768	75-79	1,234	1,050
70 +	1,995	.5462	80 +	774	680
Total	121,900			117,413	90,450*

*: the total includes 625 respondents in the 5-9 age group.

**Table A12. Comparison of Annual Numbers of Immigrants (1966, 1971 and 1976)
With Numbers Enumerated in 1981 by Age Group, Canada - Concluded**

Age	Immigrants in 1976	Probability of survival (1981 table)	Age in 1981	Anticipated in 1986	Respondents in 1986
0-4	11,881	.9965	10-14	11,839	11,515
5-9	14,319	.9957	15-19	14,257	10,955
10-14	11,919	.9922	20-24	11,826	8,910
15-19	12,049	.9902	25-29	11,931	10,430
20-24	22,657	.9903	30-34	22,437	17,370
25-29	24,097	.9895	35-39	23,844	15,910
30-34	14,725	.9856	40-44	14,513	9,680
35-39	8,854	.9774	45-49	8,654	5,725
40-44	5,338	.9632	50-54	5,142	3,390
45-49	3,954	.9410	55-59	3,721	2,640
50-54	3,787	.9085	60-64	3,440	2,450
55-59	3,632	.8610	65-69	3,127	2,215
60-64	5,056	.7931	70-74	4,010	2,515
65-69	3,548	.6995	75-79	2,482	1,290
70+	3,613	.4247	80+	321	580
Total	149,479			141,544	106,545*
*: the total includes 495 respondents in the 5-9 age group.					

Source: Employment and Immigration, *Immigration Statistics*, 1966, 1971, 1976, and Statistics Canada, 1981 Census.

Table A13. Demographic Accounts of the Provinces and Territories, 1971-1988
(in thousands)

Year	Popula- tion ¹	Total growth ²	Births ²	Deaths ²	Natural increase	Net migra- tion ³
Canada						
1971	21,465.0	244.6	262.2	157.3	104.9	139.7
1972	21,709.6	232.8	347.3	162.4	184.9	47.9
1973	21,942.4	292.9	343.4	164.0	179.3	113.6
1974	22,235.3	333.4	350.7	166.8	183.9	149.5
1975	22,568.7	315.2	359.3	167.4	191.9	123.3
1976	22,883.9	274.5	360.0	167.0	193.0	81.5
1977	23,158.4	259.0	361.4	167.5	193.9	65.1
1978	23,417.4	227.1	358.9	168.2	190.7	36.4
1979	23,644.5	267.4	366.1	168.2	197.9	69.5
1980	23,911.9	309.4	370.7	171.5	199.2	110.2
1981	24,221.3	262.1	371.3	171.0	200.3	61.8
1982	24,483.4	222.3	373.1	174.4	198.7	23.6
1983	24,705.7	190.1	373.7	174.5	199.2	-9.1
1984	24,895.8	194.6	377.0	175.7	201.3	-6.7
1985	25,090.4	183.6	375.7	181.3	194.4	-10.8
1986	25,274.0	218.9	372.9	184.2	188.7	30.2
1987	25,492.9	294.2	369.7	185.0	184.8	109.4
1988	25,787.1					
Newfoundland						
1971	519.0	8.8	12.8	3.2	9.6	-0.8
1972	527.2	7.2	12.9	3.3	9.5	-2.3
1973	534.4	5.4	12.9	3.4	9.5	-4.1
1974	539.8	6.6	11.5	3.3	8.2	-1.6
1975	546.4	8.4	11.2	3.2	8.0	0.4
1976	554.8	4.2	11.5	3.3	8.2	-4.0
1977	559.0	2.3	11.1	3.1	8.0	-5.7
1978	561.3	2.0	10.5	3.1	7.4	-5.4
1979	563.3	1.3	10.2	3.1	7.0	-5.7
1980	564.6	2.6	10.3	3.3	7.0	-4.4
1981	567.2	-1.2	10.1	3.2	6.9	-8.1
1982	566.0	3.9	9.2	3.4	5.8	-1.9
1983	569.9	2.0	8.9	3.5	5.4	-3.4
1984	571.9	-0.8	8.6	3.5	5.0	-5.8
1985	571.1	-2.4	8.5	3.6	4.9	-7.3
1986	568.7	-1.2	8.1	3.5	4.6	-5.8
1987	567.5	-0.8	7.8	3.6	4.1	-4.9
1988	566.7					

See notes at end of this table.

Table A13. Demographic Accounts of the Provinces and Territories, 1971-1988
(in thousands) - Continued

Year	Popula- tion ¹	Total growth ²	Births ²	Deaths ²	Natural increase	Net migra- tion ³
Prince Edward Island						
1971	111.0	1.2	2.1	1.0	1.1	0.1
1972	112.2	1.4	2.0	1.1	1.0	0.4
1973	113.6	1.0	1.9	1.0	0.9	0.1
1974	114.6	2.0	1.9	1.1	0.9	1.1
1975	116.6	1.4	1.9	1.1	0.9	0.5
1976	118.0	1.0	1.9	1.1	0.8	0.2
1977	119.0	1.5	2.0	1.0	0.9	0.6
1978	120.5	1.1	2.0	1.0	1.0	0.1
1979	121.6	0.9	1.9	1.0	0.9	0.0
1980	122.5	-0.1	2.0	1.0	0.9	-1.0
1981	122.4	0.1	1.9	1.0	0.9	-0.8
1982	122.5	0.7	1.9	1.0	0.9	-0.2
1983	123.2	1.4	1.9	1.1	0.9	0.5
1984	124.6	1.2	2.0	1.1	0.8	0.4
1985	125.8	0.6	2.0	1.1	0.9	-0.3
1986	126.4	0.3	1.9	1.1	0.8	-0.5
1987	126.7	1.5	2.0	1.1	0.8	0.7
1988	128.2 ⁴					
Nova Scotia						
1971	785.0	7.9	14.3	6.7	7.6	0.3
1972	792.9	8.5	13.5	6.9	6.6	1.9
1973	801.4	8.0	13.3	6.9	6.4	1.6
1974	809.4	7.3	12.9	6.9	6.0	1.3
1975	816.7	9.8	13.1	6.8	6.3	3.5
1976	826.5	5.7	13.0	7.0	6.0	-0.3
1977	832.2	3.6	12.4	7.0	5.4	-1.8
1978	835.8	4.4	12.5	6.9	5.7	-1.3
1979	840.2	3.5	12.4	6.8	5.6	-2.1
1980	843.7	3.2	12.4	7.0	5.4	-2.2
1981	846.9	2.1	12.1	7.0	5.1	-3.0
1982	849.0	5.6	12.3	6.9	5.4	0.2
1983	854.6	7.4	12.4	7.0	5.4	2.0
1984	862.0	6.9	12.4	6.9	5.5	1.4
1985	868.9	3.3	12.5	7.3	5.1	-1.8
1986	872.2	4.1	12.4	7.3	5.1	-1.0
1987	876.3	4.0	12.1	7.1	5.0	-1.0
1988	880.3 ⁴					

See notes at end of this table.

Table A13. Demographic Accounts of the Provinces and Territories, 1971-1988
(in thousands) - Continued

Year	Popula- tion ¹	Total growth ²	Births ²	Deaths ²	Natural increase	Net migma- tion ³
New Brunswick						
1971	630.0	8.2	12.2	4.9	7.2	1.0
1972	638.2	5.3	11.8	5.0	6.8	-1.5
1973	643.5	7.7	11.4	5.1	6.3	1.4
1974	651.2	9.5	11.4	5.2	6.2	3.3
1975	660.7	13.1	11.8	5.1	6.7	6.4
1976	673.8	7.9	12.1	5.2	6.9	1.0
1977	681.7	5.2	11.5	5.2	6.3	-1.1
1978	686.9	3.3	10.8	5.2	5.6	-2.3
1979	690.2	3.7	10.8	5.2	5.7	-2.0
1980	693.9	1.8	10.6	5.3	5.3	-3.5
1981	695.7	-0.4	10.5	5.1	5.4	-5.8
1982	695.3	5.2	10.5	5.2	5.3	-0.1
1983	700.5	5.3	10.5	5.2	5.3	0.0
1984	705.8	3.7	10.4	5.3	5.1	-1.4
1985	709.5	1.0	10.1	5.2	4.9	-3.9
1986	710.5	0.3	9.8	5.5	4.3	-4.0
1987	710.8	1.5	9.6	5.4	4.2	-2.7
1988	712.3 ⁴					
Quebec						
1971	6,017.0	22.7	89.2	40.7	48.5	-25.8
1972	6,039.7	24.7	83.6	42.3	41.3	-16.6
1973	6,064.4	38.7	84.1	42.7	41.4	-2.7
1974	6,103.1	52.5	85.6	42.8	42.8	9.7
1975	6,155.6	55.9	93.0	42.8	50.2	5.7
1976	6,211.5	51.5	93.0	42.6	50.4	1.1
1977	6,263.0	22.6	95.7	43.5	52.2	-29.6
1978	6,285.6	30.6	96.2	43.6	52.6	-22.0
1979	6,316.2	43.7	98.6	43.3	55.3	-11.6
1980	6,359.9	53.0	97.4	43.5	53.9	-0.9
1981	6,412.9	37.4	95.3	42.7	52.6	-15.2
1982	6,450.3	14.8	90.8	43.5	47.3	-32.5
1983	6,465.1	15.4	88.2	44.3	43.9	-28.5
1984	6,480.5	22.0	87.8	44.4	43.4	-21.4
1985	6,502.5	25.5	86.3	45.7	40.6	-15.1
1986	6,528.0	40.4	84.6	46.9	37.7	2.7
1987	6,568.4	50.2	83.8	47.6	36.2	14.0
1988	6,618.6 ⁴					

See notes at end of this table.

Table A13. Demographic Accounts of the Provinces and Territories, 1971-1988
(in thousands) - Continued

Year	Popula- tion ¹	Total growth ²	Births ²	Deaths ²	Natural increase	Net migra- tion ³
Ontario						
1971	7,656.0	113.3	130.4	56.6	73.8	39.5
1972	7,769.3	100.8	125.1	58.9	66.2	34.6
1973	7,870.1	126.3	123.8	59.9	63.9	62.4
1974	7,996.4	128.5	124.2	60.6	63.7	64.8
1975	8,124.9	103.9	125.7	60.5	65.2	38.7
1976	8,228.8	85.8	125.5	61.2	64.3	21.5
1977	8,314.6	93.3	122.8	61.4	61.3	32.0
1978	8,407.9	67.5	121.0	61.1	59.8	7.7
1979	8,475.4	64.4	121.7	61.5	60.2	4.2
1980	8,539.8	59.9	123.3	62.7	60.6	-0.7
1981	8,599.7	64.1	122.2	62.8	59.3	4.8
1982	8,663.8	97.4	124.9	63.7	61.2	36.2
1983	8,761.2	98.6	126.8	64.5	62.3	36.3
1984	8,859.8	109.4	131.3	64.7	66.6	42.8
1985	8,969.2	103.0	132.2	66.7	65.5	37.5
1986	9,072.2	129.0	133.9	67.9	66.0	63.0
1987	9,201.2	167.0	134.6	68.1	66.5	100.5
1988	9,368.2 ⁴					
Manitoba						
1971	984.0	5.0	18.0	8.0	10.0	-5.0
1972	989.0	3.3	17.4	8.2	9.2	-5.9
1973	992.3	9.8	17.0	8.2	8.8	1.0
1974	1,002.1	7.7	17.3	8.4	8.9	-1.2
1975	1,009.8	8.4	17.1	8.4	8.8	-0.4
1976	1,018.2	6.2	17.0	8.3	8.7	-2.5
1977	1,024.4	5.8	16.7	8.2	8.5	-2.7
1978	1,030.2	-2.4	16.4	8.3	8.1	-10.5
1979	1,027.8	-4.8	16.2	8.2	8.0	-12.8
1980	1,023.0	0.4	16.0	8.4	7.6	-7.2
1981	1,023.4	6.0	16.1	8.6	7.4	-1.4
1982	1,029.4	11.4	16.1	8.5	7.6	3.8
1983	1,040.8	10.1	16.6	8.5	8.1	2.0
1984	1,050.9	9.7	16.7	8.3	8.4	1.3
1985	1,060.6	7.4	17.1	8.8	8.3	-0.9
1986	1,068.0	6.6	17.0	8.9	8.1	-1.5
1987	1,074.6	6.3	17.0	8.7	8.2	-1.9
1988	1,080.9 ⁴					

See notes at end of this table.

Table A13. Demographic Accounts of the Provinces and Territories, 1971-1988
(in thousands) - Continued

Year	Popula- tion ¹	Total growth ²	Births ²	Deaths ²	Natural increase	Net migra- tion ³
Saskatchewan						
1971	927.0	-9.9	16.1	7.4	8.6	-18.5
1972	917.1	-10.5	15.5	7.6	7.9	-18.4
1973	906.6	-6.7	14.8	7.6	7.2	-13.9
1974	899.9	2.4	15.1	7.8	7.3	-4.9
1975	902.3	14.4	15.3	7.7	7.6	6.8
1976	916.7	12.9	15.8	7.7	8.1	4.8
1977	929.6	11.1	16.5	7.6	9.0	2.1
1978	940.7	6.3	16.6	7.7	8.8	-2.5
1979	947.0	8.5	16.9	7.4	9.6	-1.1
1980	955.5	8.6	17.1	7.7	9.4	-0.8
1981	964.1	9.8	17.2	7.5	9.7	0.1
1982	973.9	10.5	17.7	8.2	9.5	1.0
1983	984.4	11.4	17.8	7.6	10.2	1.2
1984	995.8	10.2	18.0	7.7	10.3	-0.1
1985	1,006.0	3.8	18.2	8.0	10.1	-6.3
1986	1,009.8	2.7	17.5	8.1	9.5	-6.8
1987	1,012.5	0.3	17.0	7.8	9.2	-8.9
1988	1,012.8 ⁴					
Alberta						
1971	1,616.0	28.7	30.5	10.5	20.0	8.7
1972	1,644.7	32.3	29.3	10.7	18.6	13.7
1973	1,677.0	32.1	29.3	10.8	18.5	13.6
1974	1,709.1	46.6	29.8	11.3	18.6	28.0
1975	1,755.7	58.7	31.6	11.4	20.2	38.5
1976	1,814.4	70.6	32.9	11.6	21.3	49.3
1977	1,885.0	70.9	34.4	11.6	22.8	48.1
1978	1,955.9	68.5	35.4	11.9	23.5	45.0
1979	2,024.4	81.2	37.0	12.1	24.9	56.3
1980	2,105.6	98.0	39.7	12.7	27.0	71.0
1981	2,203.6	85.3	42.6	12.8	29.8	55.5
1982	2,288.9	42.8	45.0	13.0	32.1	10.7
1983	2,331.7	6.3	45.6	12.6	33.0	-26.7
1984	2,338.0	1.2	44.1	12.7	31.4	-30.2
1985	2,339.2	19.9	43.8	13.2	30.6	-10.7
1986	2,359.1	11.4	43.7	13.6	30.2	-18.8
1987	2,370.5	11.1	42.1	13.3	28.8	-17.7
1988	2,381.6 ⁴					

See notes at end of this table.

Table A13. Demographic Accounts of the Provinces and Territories, 1971-1988
(in thousands) - Continued

Year	Popula- tion ¹	Total growth ²	Births ²	Deaths ²	Natural increase	Net migra- tion ³
British Columbia						
1971	2,168.0	55.6	34.9	17.8	17.1	38.5
1972	2,223.6	56.6	34.6	18.0	16.5	40.1
1973	2,280.2	69.6	34.4	18.1	16.3	53.3
1974	2,349.8	68.5	35.5	19.2	16.3	52.2
1975	2,418.3	38.8	36.3	19.1	17.2	21.6
1976	2,457.1	28.4	35.9	18.9	17.0	11.4
1977	2,485.5	41.6	36.0	18.6	17.4	24.2
1978	2,527.1	45.0	37.2	19.1	18.2	26.8
1979	2,572.1	64.3	38.4	19.2	19.2	45.1
1980	2,636.4	81.3	40.1	19.4	20.7	60.6
1981	2,717.7	56.4	41.5	19.9	21.6	34.8
1982	2,774.1	28.6	42.7	20.7	22.0	6.6
1983	2,802.7	31.1	42.9	19.8	23.1	8.0
1984	2,833.8	29.2	43.9	20.7	23.2	6.0
1985	2,863.0	20.4	43.1	21.3	21.8	-1.4
1986	2,883.4	25.3	42.0	21.2	20.8	4.5
1987	2,908.7	52.2	41.8	21.8	20.0	32.2
1988	2,960.9 ⁴					
Yukon						
1971	18.0	1.2	0.5	0.1	0.4	0.8
1972	19.2	1.0	0.5	0.1	0.3	0.7
1973	20.2	0.3	0.4	0.1	0.3	0.0
1974	20.5	0.6	0.5	0.1	0.4	0.2
1975	21.1	0.7	0.4	0.1	0.3	0.4
1976	21.8	0.1	0.4	0.1	0.3	-0.2
1977	21.9	0.5	0.4	0.1	0.3	0.2
1978	22.4	0.2	0.4	0.1	0.4	-0.2
1979	22.6	0.0	0.5	0.1	0.4	-0.4
1980	22.6	0.1	0.5	0.1	0.3	-0.2
1981	22.7	0.9	0.5	0.1	0.4	0.5
1982	23.6	-0.6	0.5	0.1	0.4	-1.0
1983	23.0	-0.1	0.5	0.1	0.4	-0.5
1984	22.9	0.5	0.5	0.1	0.4	0.1
1985	23.4	0.1	0.5	0.1	0.3	-0.2
1986	23.5	0.7	0.5	0.1	0.4	0.3
1987	24.2	0.7	0.5	0.1	0.4	0.3
1988	24.9 ⁴					

See notes at end of this table.

Table A13. Demographic Accounts of the Provinces and Territories, 1971-1988
(in thousands) - Concluded

Year	Popula- tion ¹	Total growth ²	Births ²	Deaths ²	Natural increase	Net migra- tion ³
	Northwest Territories					
1971	34.0	2.5	1.3	0.2	1.1	1.4
1972	36.5	2.2	1.2	0.3	1.0	1.2
1973	38.7	0.7	1.2	0.2	1.0	-0.3
1974	39.4	1.2	1.0	0.2	0.8	0.4
1975	40.6	1.7	1.2	0.2	1.0	0.7
1976	42.3	0.4	1.2	0.2	1.0	-0.6
1977	42.7	0.4	1.2	0.2	1.0	-0.6
1978	43.1	0.5	1.2	0.2	1.0	-0.5
1979	43.6	0.7	1.3	0.2	1.1	-0.4
1980	44.3	0.7	1.3	0.2	1.1	-0.4
1981	45.0	1.6	1.3	0.2	1.1	0.5
1982	46.6	1.9	1.4	0.2	1.1	0.8
1983	48.5	1.3	1.5	0.2	1.3	0.0
1984	49.8	1.5	1.4	0.2	1.2	0.3
1985	51.3	0.8	1.4	0.2	1.2	-0.4
1986	52.1	-0.5	1.5	0.2	1.3	-1.8
1987	51.6	0.3	1.5	0.2	1.3	-1.0
1988	51.9 ⁴					

¹ As of January 1. Data are taken from final intercensal estimates for 1971-86 and from final postcensal estimates for 1987.

² From January 1 to December 31.

³ Difference between total growth and natural increase.

⁴ Preliminary estimate.

Note: Calculations are based on unrounded data.

Source: Statistics Canada, *Quarterly Demographic Statistics*.

PART II

THE TERMINATION OF PREGNANCY¹ IN A POPULATION PERSPECTIVE

Introduction

Fertility has been venerated throughout the history of humankind because of high death rates that constantly threatened the survival of the species. Ancient civilizations deified fertility, and later civilizations held miscarriage to be an evil. Induced abortion in this context aroused society's indignation to such levels that the practice was generally condemned. With a spectacular reduction in mortality, and especially in infant mortality, modern societies have gradually adopted different views on fertility. Now, in certain societies, the importance of births is weighed with the competing values of the physical and mental health of the mother and, by extension, of the family and society as a whole.

Since the end of World War II, and especially in recent decades, many countries have either modified their criminal code to authorize the termination of pregnancy under certain circumstances, or have decriminalized the procedure altogether. These reforms grant varying degrees of freedom, and sometimes total freedom, to the woman or couple who want to terminate a pregnancy. In countries where this operation has been legalized, pregnancies are hygienically and efficiently terminated so as to eliminate any complications, especially those serious enough to lead to death in "backroom" operations. Abortion was still pushing up the female death rate in many countries not so very long ago, and continues to do so where it is illegal or difficult to obtain. If, in a simple logical framework, births are averted when pregnancies are terminated, then terminations have an effect on the population. Indeed, terminated pregnancies have had a marked impact on fertility rates in several major countries, even though the recent and widespread practice of birth control has now greatly reduced their role. To measure the demographic effect of the voluntary interruption of pregnancy, however, requires more than to simply sum the total number of abortions and births in a given society.

The history of pregnancy termination in some countries may be summarized here without going into extensive detail about the laws, enacted, amended or repealed. In the U.S.S.R., post-Revolution law did not address the question of pregnancy termination in any great detail, but pregnancy could be terminated on demand because Lenin's government had guaranteed women this right. The government subjected the practice to a legal process in the 1930s, the

¹ The World Health Organization has asked its member countries to use the term "termination of pregnancy" instead of "abortion", which has legal and moral connotations. "Termination of pregnancy" and "therapeutic abortion" are almost always used synonymously in this text.

express purpose of which was to reach expectant mothers to remind them of their duty to contribute to population growth. In 1936, it became difficult to terminate a pregnancy because economic forecasts predicted strong labour force demands. The freedom to terminate unwanted pregnancies was not restored until after the death of Stalin.

Japan deemed itself over-populated after World War II, and although the termination of pregnancy was never put forward as a means to alleviate population pressure, it was legally sanctioned and subsidized by the state so as to ensure professional medical supervision. The number of terminated pregnancies rose from 320,000 in 1950 to 3.15 million in 1966². Notwithstanding the potential effect of birth control practices, this appears to have depressed the birth rate, which plummeted from 36.3 to 17.2 per 1,000.

After several decades of ideological debate, pregnancy termination in modern China is not only entirely free, but it is practically inevitable for "illegally pregnant"³ women, so insistent are the militants of a party who believe it imperative to limit population increase. Equally irresistible pressures are exerted on couples judged to be too procreative in Singapore, many regions of India and other countries. These couples are strongly encouraged to terminate a pregnancy in the event of birth control failure or non-practice.

Preoccupation with the effect of abortion on the population in the Western World, if not explicit, is neither entirely absent when it comes to modification of the law. Modifications result frequently in unforeseeable swings between restriction and tolerance, in which the responsibilities and interests of individuals and society are intertwined in the most complex and changeable manner. Moreover, the text of the law for practically all countries merely reflects the official position of the current government; this position tends to be based on majority opinion in democracies. The restrictive component in any law often incites offenders, and in this sense, laws on pregnancy termination are like any other. Court challenges can lead to different case resolutions because of the complex wording of these laws. It is therefore the severity (difficult to evaluate) by which the infraction is judged that expresses the will of the legislator. As a consequence, it would be imprudent to regard the text of the law as indicative of actual practice. To have the right does not imply that one is disposed to the means. Canada, to be discussed later, is a patent example in this regard. It is unlike Belgium, where the termination of pregnancy has been illegal up until now, and where doctors who transgressed the law were not prosecuted because pregnancies were terminated at no charge and under justifiable medical circumstances.

² Minoru Muramatsu, "An analysis of factors in fertility control in Japan - an updated and revised version", *Bulletin of the Institute of Public Health* 22 (4):228-236, 1973.

³ Although couples are not strictly forbidden to have more than one child, those who do so are heavily taxed.

The International Situation

The official position of 143 countries on the termination of pregnancy was made public in 1986.⁴ These positions ranged from absolute prohibition to complete freedom. The following considerations were taken into account in countries where freedom was not total:

- 1) the risk to the woman's life;
- 2) the risk to the physical or mental health of the woman: therapeutic justification;
- 3) the risk of physical or mental handicap to the unborn child: eugenic justification;
- 4) pregnancy following rape or incest: legal justification;
- 5) the effect produced by the gestation and birth of another child on the health of the woman, her well-being, and that of the children already born: socioeconomic justification;
- 6) the threat to the social status of the woman and her family;
- 7) the failure of customary birth control practice.

Countries are grouped for analytical purposes according to the restrictiveness and permissiveness of their position on pregnancy termination:⁵

- 1) countries where pregnancy is terminated on demand. This total freedom is restricted in most cases to the first weeks of pregnancy. Vietnam sets no limits, while American laws still set the old, highly imprecise limit of fetal viability;
- 2) countries where pregnancy termination is theoretically banned entirely, including where exceptions are made to save the life of the mother;
- 3) countries where a less precise law takes into account one or more of the therapeutic, eugenic, legal or socioeconomic reasons as justification for pregnancy termination.

In 22 countries with approximately 40 per cent of the world's population, the law permits pregnancy termination on demand. The populations of the United States, the U.S.S.R. and China represent four-fifths of the total population in these countries. Distributed over 67 countries as diverse as India and the Seychelles, almost 35 per cent of the global population has access to the termination of pregnancy only with certain justifications. The termination of pregnancy is illegal for 25 per cent of the population living in 54 countries. Most of these countries are Muslim.

⁴ Tietze, Christopher and Stanley K. Henshaw, *Induced Abortion, A World Review 1986*, 6 edition (The Alan Guttmacher Institute, 111 Fifth Avenue, New York 10003).

⁵ There are no cases in which the law is simple and unequivocal; therefore, the significance of the exceptions contained in the law must be assessed before the countries are grouped.

The liberalization of pregnancy termination began in the Western World long ago, but the movement has taken off only in the last twenty years.⁶ Between 1967 and 1977, 35 countries became more permissive toward pregnancy termination, some to a greater extent than others. Three countries (Bulgaria, Czechoslovakia and Hungary), by contrast, took more restrictive measures.

Table 1. Countries that accepted new justifications to permit the voluntary interruption of pregnancy

1967 to 1977		1977 to 1988	
Argentina Australia Austria Benin Cameroon Canada Chili Cyprus Denmark German Dem. Rep. El Salvador Fiji Finland France Guatemala Hong Kong Ireland India Iran Israel Morocco New Zealand	Norway Peru Singapore South Africa South Korea Sweden Tunisia United Arab Emirates United Kingdom United States	Algeria Barbados Belize Bermuda Burundi Comoros Cyprus Czechoslovakia France French Polynesia Ghana Greece Honk Kong Hungary Italy Kuwait Liberia Liechtenstein Luxembourg Montserrat Netherlands New Zealand	Norway Peru Portugal Qatar Rwanda Seychelles Spain South Africa Taiwan Turkey Vanuatu Yugoslavia
Countries that imposed restrictive measures to the laws already in effect			
1967 to 1977		1977 to 1988	
Bulgaria Czechoslovakia Hungary		Finland Honduras Israel Romania	

Source: Cook, Rebecca J. and Bernard M. Dickens, "A Decade of International Change in Abortion Laws, 1967-1977" *American Journal of Public Health*, July 1978, Volume 68, No. 7; Cook, R.J. and B.M. Dickens, "International Developments in Abortion Law, 1977-1988, *American Journal of Public Health*, October 1988, volume 78, no. 10.

⁶ Rebecca J. Cook, and B.M. Dickens, "International Development in Abortion Laws: 1977-1988", *American Journal of Public Health*, October 1988, Volume 78, No. 10; Cook and Dickens, "A Decade of International Change in Abortion Laws: 1967-1977", *American Journal of Public Health*, July 1978, Volume 68, No. 7.

Between 1977 and 1988, 34 countries, some of which had already become more liberal in the preceding ten-year period, increased the number of invokable reasons to terminate pregnancy. Only four countries (Finland, Romania, Honduras and Israel) imposed slight restrictions to the laws already in effect over this same period. It is evident that in most societies, the general tendency in recent years has been in the direction of less stringent opposition to the voluntary interruption of pregnancy.

Canada and Therapeutic Abortion

The Canadian law on therapeutic abortion, amended in 1969 (sections 287 and 288 of the Criminal Code), may be summarized as follows. To be legal, abortion has to be performed by a qualified medical practitioner other than any of the three qualified practitioners on the therapeutic abortion committee. The patient's case has to be examined by this committee, which declares by majority decision whether, in its opinion, the continuation of the pregnancy would certainly or probably endanger the life or health of the woman.⁷ In addition, the procedure has to be performed in an accredited or approved hospital. This law was ruled unconstitutional in January 1984, and at the present time, Canada is among those countries that do not have a law on pregnancy termination. A law has been tabled in Parliament at the time of this writing.

Statistics Canada has published data on therapeutic abortions since 1972. For administrative purposes, these data are classified under four categories in which the numbers differ slightly. Most data used in this text deal with therapeutic abortions performed on Canadian women in Canada, about whom certain socioeconomic and demographic characteristics are known.

The total number of voluntarily interrupted pregnancies in Canada is unknown. To obtain this figure, it would be necessary to add to therapeutic abortions:

- 1) self-induced abortions that require hospitalization and are considered spontaneous abortions;
- 2) abortions induced by either a doctor, the woman herself or another person and which do not require hospitalization;
- 3) abortions performed in a hospital, whether in Canada or abroad, but classified under a heading other than therapeutic abortion;
- 4) legal abortions performed on Canadian women abroad, other than in England-Wales and in some American states that have communicated information to Canada.⁸

⁷ It should be noted that Canadian law does not take the malformation of the fetus directly into consideration.

⁸ During the most recent period, Statistics Canada had information only from New York City, New York State and approximately nine other American states.

Table 2. Number of Legal and Known Non-Therapeutic Abortions Performed on Canadian Women and Abortion Rate¹, Canada, 1971-1986

Year	Therapeutic abortions	Legal abortions performed on Canadian women in the United States	Non-therapeutic abortions performed in Quebec ²	Total known abortions	Rate of known voluntary interruption of pregnancy (per 1,000 women ages 13-44)
1971	30,923	6,309	-	37,232	7.3
1972	38,853	6,573	-	45,426	8.7
1973	43,201	5,501	-	48,702	9.1
1974	48,136	4,299	-	52,435	9.6
1975	49,311	4,394	-	53,705	9.5
1976	54,478	4,234	-	58,712	10.2
1977	57,564	2,300	486	60,350	10.3
1978	62,290	1,802	1,823	65,915	11.0
1979	65,043	1,073	2,879	68,995	11.4
1980	65,751	1,644	5,348	72,743	11.8
1981	65,053	2,651	5,151	72,855	11.6
1982	66,254	4,311	5,714	76,279	12.1
1983	61,750	3,983	5,794	71,527	11.2
1984	62,247	3,631	6,284	72,162	11.2
1985	62,712	2,798	4,391	69,901	10.8
1986	63,462	2,612	3,561	69,635	10.7

¹ Number of legal abortions per 1,000 women ages 13-44.

² The difference between the data available from the Régime Assurance Maladie du Québec and data published by Statistics Canada.

Source: Statistics Canada, Catalogue 82-211.

These data have never been available and, consequently, any figures that have ever been advanced can only be estimates.

It may seem curious that citizens of a country such as Canada, where pregnancy is legally terminated, would go abroad to undergo this procedure. It is possible that these citizens constitute cases rejected by Canadian abortion committees. This would certainly be the case for some women, but there might be other personal reasons why women would go abroad, such as confidence in certain doctors or clinics, the desire for total secrecy, and the presence (or absence) of family or friends. Other reasons may include the relative scarcity of accredited hospitals, which represent only a small percentage of the total number of hospitals. The report of the Committee on the Operation of the Abortion Law in Canada stated that 40 per cent of Canadian women live in regions where hospitals are not eligible to create therapeutic abortion committees. Quebec has kept its distance with respect to the law on therapeutic abortion. According to Luce Harnois (*Rapport sur l'avortement au Québec*, page 40), accessibility to services varies so widely from one region of the province to another, that seven of ten pregnancies are terminated in the Montreal area, yet the percentage of the population living in this area is proportionately much smaller. Conversely, very few foreign women have come to Canada to undergo a therapeutic abortion (only 65 in 1982).

Evolution

Voluntarily and legally interrupted pregnancies in all provinces except Quebec⁹ fall into the category of therapeutic abortions, the only category for which information is available. The number and relative frequency of abortions greatly increased over the first few years following the amendment to the law in 1969. Numbers and especially rates have stabilized somewhat since 1976 (Table 2). The trend in pregnancies terminated by Canadian women in the United States is difficult to interpret. Numbers declined from approximately 6,309 in 1971 to 1,073 in 1979. Since then, the known number has hovered between two and four thousand, depending on the year.

International Comparisons

It would be interesting to compare the number of pregnancies terminated in Canada with the number terminated in other countries. Unfortunately, such a comparison is a delicate matter, given variations in the quality of information-gathering processes and data content from one country to another. Certain countries list procedures that others leave out, and in most cases, the values

⁹ In Quebec, pregnancies are medically terminated under conditions other than therapeutic abortion. They are therefore not secret. The health insurance office keeps track of such operations inasmuch as they are medical procedures for which the attending doctor is remunerated. However, this system cannot account for abortions performed in institutions where doctors receive salaries.

are only estimates.¹⁰ The comparison of rates and numbers to reveal behavioural trends should only be drawn if populations have the same demographic structures. Some observations may be made about the global rates, that is, the ratio of the number of reported terminated pregnancies to the number of women between the ages of 15 and 44 years.

murder (abortion)
Table 3. Rate of Voluntary Interruption of Pregnancy in Certain Countries, Recent Years

Country	Year	Number per 1,000 women ages 15-44
U.S.S.R.	82	181
Romania	83	90.9
Yugoslavia	84	70.5
Bulgaria	84	61.9
China	83	61.5
Cuba	84	58.6
Greenland	83	44.7
Hungary	84	37.1
Czechoslovakia	84	34.5
United States	82	28.8 ---- 23.9 ¹
Singapore	83	28.1
German Democratic Republic	84	26.6
Israel	84	21.9
Japan	83	21.5
Italy	84	19.0
Denmark	84	18.4
Sweden	84	17.7
Poland	84	16.5
Norway	84	15.9
Australia	84	15.2
France	84	14.9
Vietnam	80	14.6
Tunisia	85	13.6
Iceland	83	12.9
England	84	12.8
Finland	83	12.1
Hong Kong	84	11.3
Canada	86	10.7
New Zealand	84	9.7
Scotland	84	8.9
Federal Republic of Germany	84	7.3
Netherlands	84	5.6
Bangladesh	84/85	3.4
India	80/81	2.7

¹ According to two different sources of estimation.

Source: Christopher Zietze, *Therapeutic Abortion: A World Review*, 1986.

¹⁰ For example, some countries do not consider induced menstruation as abortion even if it is done 10 weeks after the last presumed date of menstruation.

Countries with similar rates¹¹ are generally dissimilar with respect to other characteristics that could be correlated:

- 1) Some countries with very high rates (Bulgaria, China, Cuba, Romania, the U.S.S.R., Yugoslavia) have nothing more in common than their political ideologies.
- 2) Conversely, countries with similar characteristics have fairly different global abortion rates: the Netherlands (5.6), Italy (19.0), New Zealand (9.7), Australia (15.2), Scotland (8.9), and England (12.8).
- 3) Taking into account the uncertainty of these rates, Canada, with its rate of 10.7, may be said to be fairly low in comparison.
- 4) Rates for most countries where the number of terminated pregnancies are recorded show an increase until the late 1970s, followed by a clear tendency to decrease.

Regional Disparities in Canada

What is surprising about Canadian therapeutic abortion statistics is the difference in rates from one province to another. The Eastern provinces (with the exception of Nova Scotia) generally have low rates, while provinces from Ontario to British Columbia have significantly higher rates (Tables 4 and 6). An examination of the more specific ratio of terminated pregnancies to total pregnancies should suggest some interpretations for these regional differences.

The Terminated Pregnancy Ratio

The number of pregnancies cannot be accurately calculated just by adding the number of live births and the number of therapeutic abortions. To this should be added the number of spontaneous abortions and the number of stillbirths.¹² This precision however, will not substantially affect the conclusions which are primarily based on the age structures of these ratios. Table 5 shows that behavioural trends generally comply with certain expectations. Age-specific ratios correspond to a “U” curve, with maximum values at both extremes of the reproductive lifespan. But there are gaps in age groups for the different provinces that remain unexplained.

Ontario was arbitrarily chosen because of its size and its diverse population as a standard against which the behavioural trends in the other provinces can be compared. British Columbia’s behavioural trends appear to be within the range of this comparison. Quebec’s ratios for all age groups are lower as a result of the non-therapeutic abortions performed in the province (see above). The case of New Brunswick is certainly more troublesome. This province’s ratios

¹¹ Per 1,000 women ages 15 to 44.

¹² See “Who Undergoes Abortion” later in the text.

murder
Table 4. Number and Non-Spontaneous Abortion Rate, According to Hospital Morbidity Accounts and Number and Rate of Therapeutic Abortions, Canada and Provinces, 1984

Province	Number of pregnancies terminated according to hospital statistics ¹	Female population ages 15-44	Rate	Therapeutic abortions	Rate
Per 1,000 women ages 15-44					
Newfoundland	663	139,861	4.74	382	2.73
Prince Edward Island	127	28,812	4.41	12	0.42
Nova Scotia	850	206,535	4.12	1,703	8.25
New Brunswick	528	169,406	3.12	278	1.64
Quebec	8,244	1,618,460	5.09	9,720	6.01
Ontario	15,335	2,147,373	7.14	28,276	13.17
Manitoba	1,008	243,354	4.14	2,226	9.15
Saskatchewan	1,283	221,593	5.79	1,214	5.48
Alberta	5,359	593,595	9.03	6,668	11.23
British Columbia	3,656	678,807	5.39	11,449	16.87
Yukon	²	6,316	²	87	13.77
Northwest Territories	²	12,597	²	226	17.94
Canada	37,053	6,066,709	6.11	62,247	10.26

¹ Causes 143-145, abridged Canadian list of causes of disease in *Hospital Morbidity*, Catalogue No. 82-206, Statistics Canada. The data presented in Hospital Morbidity are based on fiscal years. To obtain numbers comparable to the therapeutic abortion figures, 3/12 of the year 1983-1984 were added to 9/12 of the year 1984-1985.

² Not available.

are extremely low in all age groups. Logic would dictate that by consequence, its fertility rates should therefore be passably high, but such is not the case. It must then be concluded that either the province's birth control methods are considerably more developed than those used elsewhere, or there are deficiencies in the registration of therapeutic abortions performed in New Brunswick. All other variables being equal, hospital morbidity statistics reveal that the number of terminated pregnancies that required hospitalization is about the same in New Brunswick as in Nova Scotia, whose population is about as large. Perhaps it is a case that some abortions among New Brunswick women are performed outside the province.¹³ Alberta, Saskatchewan and Manitoba's rates fall between the extremes, and it may be suspected that some of the terminated pregnancies recorded for these provinces were performed in the United States (see Table 2).

¹³ Performed in Quebec or the state of Maine.

Table 5. Ratio of Pregnancies ¹ Terminated to All Pregnancies², Canada, Provinces and Territories, 1981 and 1986

	Canada	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
1981									
15-19	38.77	27.77	12.22	30.05	48.68	21.77	21.67	32.40	50.47
20-24	15.98	12.27	4.11	9.01	21.28	9.59	8.11	14.75	24.75
25-29	8.73	7.01	1.34	5.03	11.58	4.42	4.17	7.10	15.10
30-34	10.35	7.11	2.39	6.78	13.22	6.01	4.78	8.08	15.41
35-39	18.85	15.24	6.02	13.60	23.10	11.76	11.95	14.35	25.75
40-44	38.06	26.44	8.16	31.71	44.29	22.31	17.54	30.82	49.03
1986									
15-19	38.70	15.78	8.67	38.88	46.83	30.43	14.04	31.77	50.93
20-24	18.12	6.89	2.87	15.11	21.63	17.74	6.29	16.23	26.75
25-29	8.67	3.32	1.35	7.51	9.91	6.87	2.84	7.29	14.07
30-34	9.47	3.55	1.15	9.86	9.92	6.90	3.70	7.46	13.99
35-39	16.84	5.82	4.19	18.77	17.73	11.77	7.62	13.56	20.59
40-44	31.33	9.76	10.20	31.82	33.56	21.32	18.28	30.69	34.95

¹ Calculated as the sum of therapeutic abortions and births. For an accurate calculation, monthly data must be used, as well as data on births six months later. Variations in births between two consecutive years are slight, as are variations during the year.

² Excludes Newfoundland and Prince Edward Island.

Source: Statistics Canada - Therapeutic Abortions, - Catalogue No. 82-211.

Despite these attempts at interpretation, it is clear that therapeutic abortions account for only a portion of all terminated pregnancies, and this varies from province to province.¹⁴ It seems that the different attitudes of Canadians are not to be revealed through interprovincial comparison of these statistics. Instead, these statistics probably reflect dissimilarities in the interpretation of the law, the application of its regulations, and so forth. Other disparities are:

- between the regions with respect to the medical care standards required to terminate pregnancies in general hospitals;
- in the abortion committee criteria, which vary by:
 - the availability of doctors;
 - the personal attitudes of the doctors who sit on the committee;
 - the personal attitudes of hospital administrators;
 - the accreditation or non-accreditation of the Canadian Council on Hospital Accreditation or the approval of the Minister of Health;
 - the variable delays between the request for abortion and eventual authorization;
 - the liberal or conservative interpretation of “danger to the physical or mental health of the woman”, to which can be added many other factors, including knowledge of the law among both applicants and doctors.¹⁵

Hospital statistics contribute nothing further to this study because they are based on a universe hardly reconcilable with that of therapeutic abortions. They measure the number of hospital stays calculated according to departures or “separations”. As a result, according to hospital statistics, certain provinces have higher abortion rates than those calculated from therapeutic abortion statistics, and the reverse prevails in other provinces. Differences, therefore, can be observed but not explained (Table 4).

Hospital statistics reveal more uniform attitudes toward pregnancy termination than therapeutic abortion statistics, if it is assumed that cases are treated for the same reasons in every hospital across the country. But both sets of statistics show that more pregnancies are terminated west of Quebec than east of Quebec or in Quebec itself.

Fertility and the ^{marriage}Termination of Pregnancy

A comparison of the rate of pregnancies terminated with the fertility rate quite clearly shows that fertility and abortion are not closely related (Table 6). If a pregnancy terminated is *a priori* a birth that did not take place, then,

¹⁴ Statistics Canada is not responsible for the data collection. This information is received from the provinces, and sometimes from the hospitals themselves (Therapeutic abortions, Appendix II, No. 82-211).

¹⁵ Minister of Supply and Services, *Report on the Committee of the Operation of the Abortion Law, 1977*, Catalogue J2-30/1977, p. 64.

Table 6. General Fertility and ^{male}Therapeutic Abortion Rates, Canada, Provinces¹ and Territories, 1975-1986

Provinces	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
Prince Edward Island Fertility ² Abortions ³	78.92 2.91	77.03 2.12	76.13 1.60	74.45 2.22	71.09 1.65	70.55 0.82	68.37 0.97	69.80 0.96	67.59 0.50	67.81 0.43	68.71 0.38	65.35 0.25
Nova Scotia Fertility Abortions	73.33 5.37	69.41 6.47	65.75 6.54	65.60 7.48	63.83 7.66	62.64 8.36	60.57 8.49	61.63 8.58	61.07 8.34	60.08 8.43	59.65 8.40	59.15 3.73
New Brunswick Fertility Abortions	80.25 2.47	77.30 2.53	73.58 2.62	67.76 2.82	67.22 2.74	64.98 2.84	63.94 2.71	64.01 1.50	63.32 1.65	61.94 1.67	60.61 1.87	58.82 1.68
Quebec Fertility Abortions	62.64 3.74	63.19 4.75	63.44 4.87	61.60 5.06	62.99 5.45	60.84 5.59	58.90 5.62	55.81 6.04	54.13 5.86	53.91 6.12	52.97 6.04	52.15 8.02
Ontario Fertility Abortions	67.48 13.04	64.12 13.64	63.00 13.90	60.92 14.57	60.44 15.07	60.26 15.01	59.05 14.74	59.75 15.12	59.85 13.56	61.02 13.45	60.52 12.94	60.45 12.72
Manitoba Fertility Abortions	78.39 5.70	84.61 5.97	73.20 6.66	70.83 7.98	70.14 6.95	68.81 6.80	68.71 6.90	68.12 7.41	69.14 7.12	68.58 9.34	69.62 9.64	68.95 10.84
Saskatchewan Fertility Abortions	87.13 6.69	86.99 5.64	86.59 5.99	83.97 7.24	83.93 7.90	82.32 7.48	81.20 7.69	82.40 7.70	81.10 6.52	80.45 5.67	80.48 5.40	78.22 4.96
Alberta Fertility Abortions	81.55 10.20	80.09 11.09	78.10 11.95	75.83 13.35	74.91 13.37	75.15 13.21	75.35 11.96	76.04 11.37	76.26 11.13	74.57 11.74	74.48 11.71	74.18 11.39

See notes at end of this table.

Table 6. General Fertility and Therapeutic Abortion Rates, Canada, Provinces¹ and Territories, 1975-1986 - Concluded

Provinces	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
British Columbia Fertility Abortions	66.69 17.14	63.92 17.58	64.05 18.06	63.26 20.59	63.47 20.52	63.53 19.86	63.28 19.27	64.34 19.14	66.43 16.97	65.47 16.78	64.45 16.67	63.20 17.77
Yukon Fertility Abortions	75.73 13.63	77.76 13.11	75.45 17.87	73.66 15.07	83.33 18.19	77.97 20.29	83.65 19.19	79.55 18.86	88.09 18.88	84.64 14.66	75.46 15.90	79.71 19.69
Northwest Territories Fertility Abortions	125.19 9.78	120.27 9.12	118.96 9.99	116.16 12.89	120.18 13.28	118.99 11.60	115.00 15.95	115.06 18.64	122.21 16.57	115.36 18.10	111.26 19.71	116.44 19.22
Canada Fertility Abortions	69.07 9.19	67.21 9.87	66.46 10.19	64.53 11.05	64.63 11.36	63.78 11.30	62.67 11.06	62.36 11.25	61.96 10.32	62.14 10.45	61.55 10.26	60.97 10.66

¹ Data not available for Newfoundland.

² Rate calculated from definitive and intercensal estimates and standardized on the 1981 female population (ages 15 to 44).

³ Therapeutic abortion rate per 1,000 women ages 15 to 44.

Source: Statistics Canada, Catalogue Nos. 82-211, 84-204, 91-210 and 91-519.

in practice, the precise role of contraception remains the wildcard factor in fertility rates. In other words, should the termination of pregnancy no longer exist, would there then be an increase in either fertility or the use of birth control? The number of women who resort to abortion because it is available and because they fear the side effects of birth control remains unknown. What would happen if pregnancy termination were made illegal? To respond to this question at the level of grand generality, one often shows the example of Romania, which tightened its abortion laws between 1966 and 1967, and saw its general fertility rate soar to 105 from 55 per 1,000; Hungary's fertility rate increased by 20 per cent one year following amendment of its abortion law in January, 1974. But these changes were of short duration and occurred at a time and place when birth control was not as effective as it currently is in Canada.

It is very difficult to detect a relationship between fertility and abortion in interprovincial comparisons (Table 6). Provinces with similar fertility rates can have very different abortion rates. With a fertility rate slightly higher than Canada's, the U.S. has an abortion rate nearly three times as high.¹⁶ It should also be noted that Scandinavian countries provided easy access to abortion long before the beginning of the downtrend in their fertility rates.

Who Undergoes Abortion?

The global rate is often used as a measure of the number of terminated pregnancies because its denominator (the number of women aged 13 to 44) is relatively easy to calculate, but the total rate, when it can be calculated, is more revealing. Table 7 shows that this rate has been relatively stable over a ten-year period. The rate also enables comparisons since it does not reflect changes in age structure. It indicates that, for Canada as a whole, 1,000 women over the course of their lives account for approximately 300 of the pregnancies terminated. This does not necessarily mean that 300 of 1,000 women undergo abortion, since one woman may undergo several in her lifetime.

If the ratio of abortion to pregnancy is an interesting measure, it can be easily misinterpreted. It measures only the propensity to undergo abortion in the event of an unwanted pregnancy. Ratios may be higher in age groups where conceptions are less numerous. The number of conceptions depends upon the degree of sexual activity, but also on the practice of birth control. The ratio for some age groups is therefore low even though their total number of conceptions is high. As mentioned earlier, Canadian rates in general distribute themselves according to a "U" curve. Compared to the fertility curve, this curve suggests that birth control is more effectively practiced among women in adult age groups who are generally members of a stable union and who

¹⁶ *Induced Abortion, A World Review, 1986* – op. cit., Table 2.

desire to have children. It is less effectively practiced or perhaps practiced very little by adolescents and women near the end of their reproductive period.

A distribution of the rates by age clearly shows that abortion is important in Canada at younger ages. Regardless of their level over the course of time, the rates rise among those aged 15 to 20, but slowly decline for older age groups (Table 7). This pattern is similar to that of most Western nations. In 1986, 58 per cent of terminated pregnancies in Canada involved childless women, and only 1.6 per cent involved women who had already given birth three times. In other words, married women over 30 accounted for only 11.1 per cent of the pregnancies terminated in that year.

According to data used by the Alan Guttmacher Institute, just over 40 per cent of pregnancies among single women are terminated, as opposed to approximately only five per cent among married women. This pattern differs from some other countries for which information is available, such as Denmark, Czechoslovakia and Hungary, where respectively over 20 per cent, 28 per cent and 33 per cent of pregnancies among married women are terminated. Women in these countries use abortion either to space children or to limit family size, while pregnancies in Canada seem more likely to be terminated to remedy birth control failure among single women endangered by a pregnancy.

A breakdown of terminated pregnancies according to their order reveals that the vast majority of women, at any time, are undergoing their first pregnancy interruption. This is not surprising given the role that this procedure seems to play in the pattern of Canadian reproduction. Also, the proportion of terminated second and third pregnancies increases over time (Table 8). Two complementary explanations may be offered for this observation. First, since therapeutic abortion did not exist until 1969, a certain amount of time had to lapse between the first and second abortion among women who were to have a second one. It may also be assumed that even widely available birth control does not totally prevent unwanted pregnancies. Finally, women seem to be exposed to unwanted pregnancies for a variety of reasons despite, in principle, the greater inconvenience of a therapeutic abortion.

Conclusion

In the fifteen years that therapeutic abortion has existed, there was a rapid rise in the resort to this practice until 1980, but the number of interventions has more or less stabilized since then. With the numerical change in the population at risk, this stabilization hides a slight decline. This is not exclusive to Canada. Similar trends exist in many other Western nations, even though their laws became more permissive during this period.

Pregnancies are terminated more often by young single women, and less often by women near the end of their reproductive period.

murdered

Table 7. Rate of Pregnancies ~~Terminated~~ by Age and Total Abortion Rate (per 1,000), Canada, 1974-1986

Age	Year												
	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983 ¹	1984	1985	1986 ²
15	5.2	6.0	6.7	6.7	6.5	6.8	6.4	6.1	6.1				
16	10.3	12.0	12.4	12.5	13.2	13.6	13.4	12.6	12.4				
17	12.3	14.5	14.7	16.0	16.7	17.7	17.4	16.4	15.9				
15-17										10.7	10.8	10.4	10.5
18	14.1	16.2	18.3	19.0	20.9	21.0	21.5	20.8	20.7				
19	14.5	17.1	17.7	19.1	21.2	22.3	22.1	21.1	21.5				
18-19										19.0	19.1	20.0	20.8
20	13.7	15.3	17.1	17.7	19.6	21.0	21.4	20.5	21.5				
21	12.6	14.1	15.3	16.9	18.2	19.6	19.5	19.2	19.8				
22	12.1	13.5	15.1	15.4	17.1	17.8	18.2	18.2	18.0				
23	11.0	13.0	14.3	14.8	15.6	16.4	16.2	16.2	17.2				
24	10.7	12.6	13.1	14.0	14.7	14.8	14.8	14.9	15.3				
20-24										17.5	17.8	18.1	18.6
25	9.6	11.4	12.2	12.8	13.6	14.3	13.6	13.9	14.2				
26	9.1	10.7	11.5	11.7	12.5	12.6	13.1	12.7	12.8				
27	8.2	9.8	10.9	10.9	11.6	11.7	11.6	11.4	11.6				
28	7.5	9.4	9.8	10.4	10.9	10.9	11.1	10.8	10.7				
29	6.8	8.3	9.5	9.4	9.8	10.3	10.0	9.9	10.3				
25-29										11.2	11.5	11.6	11.7
30	6.7	7.4	8.6	8.7	9.3	9.1	9.4	9.4	9.6				
31	6.1	7.4	7.5	8.1	7.9	8.5	8.3	8.2	8.4				
32	5.8	6.5	7.2	7.2	7.9	7.8	7.6	7.6	7.8				
33	6.0	6.5	6.7	6.6	6.9	7.1	6.8	6.8	7.1				
34	5.3	6.0	6.6	6.0	6.0	6.0	6.4	6.1	6.2				
30-34										7.5	7.5	7.6	7.8
35	5.2	5.9	5.9	5.5	5.7	5.9	6.0	5.3	5.7				
36	4.7	5.3	5.8	5.4	5.6	4.9	4.8	5.1	5.0				
37	4.8	4.9	4.9	4.8	4.8	4.3	4.1	4.6	4.3				
38	3.9	4.6	4.5	4.5	4.8	4.3	3.7	3.6	3.9				
39	3.6	3.8	3.9	3.8	3.7	4.0	3.6	3.1	2.9				
35-39										4.4	4.5	4.5	4.5
40	3.2	3.6	3.5	3.2	3.5	3.0	3.0	2.9	2.6				
41	2.3	2.7	3.0	2.7	2.6	2.3	2.4	2.2	2.2				
42	2.1	1.9	2.1	1.8	2.0	1.9	1.7	1.8	1.6				
43	1.4	1.6	1.6	1.4	1.6	1.2	1.3	1.0	1.2				
44	0.9	1.0	0.8	1.0	0.8	0.9	0.8	0.8	0.9				
40-44										1.7	1.7	1.7	1.6
TAR ³	219.5	253.0	271.2	278.2	295.2	301.9	300.1	293.2	297.4	283.0	286.5	289.5	294.7

¹ Up to 1982, data included only abortions performed on Canadian women in Canada. As of 1983, data refer to abortions performed on any woman in Canada. This minor change does not in any significant way affect the rates.

² It should be remembered that these rates are overestimated because of Census undercoverage. It was the younger age groups that were the least covered and it is the younger age groups that have the most pregnancies terminated.

³ Total abortion rate.

Source: Statistics Canada, *Therapeutic Abortions*, Catalogue No. 82-211.

Table 8. Number and Percentage Distribution of Therapeutic ^{murders}Abortions by Order¹, Canada, 1974-1986

Year	order					
	0	1	2	3 and up	Unknown	Total ²
1974						
Number	37,404	2,850	278	74	621	41,227
%	91	7	1	--	2	100
1975						
Number	43,586	3,735	385	114	1,213	49,033
%	89	8	1	--	2	100
1976						
Number	47,254	4,767	516	123	1,437	54,097
%	87	9	1	--	3	100
1977						
Number	49,190	5,624	649	171	1,497	57,131
%	86	10	1	--	3	100
1978						
Number	52,177	6,773	976	220	1,660	61,806
%	84	11	2	--	3	100
1979						
Number	54,043	7,704	1,069	271	1,482	64,569
%	84	12	2	--	2	100
1980						
Number	53,913	8,332	1,284	316	1,398	65,243
%	83	13	2	--	2	100
1981						
Number	52,537	8,808	1,381	349	1,479	64,554
%	81	14	2	1	2	100
1982						
Number	52,595	9,544	1,600	400	1,673	65,812
%	80	15	2	1	3	100
1983						
Number	48,286	9,447	1,702	460	1,431	61,326
%	79	15	3	1	2	100
1984						
Number	48,134	9,712	1,836	541	1,599	61,822
%	78	16	3	1	3	100
1985						
Number	46,552	9,825	1,940	556	1,645	60,518
%	77	16	3	1	3	100
1986						
Number	45,710	12,316	2,132	658	1,590	62,406
%	73	20	3	1	3	100

¹ Of therapeutic abortions and not of spontaneous abortions.

² Therapeutic abortions performed on Canadian women in Canada.

Source: Statistics Canada, *Therapeutic Abortions*, Catalogue No. 82-211.

✓

Murders

Table 9. Percentage of Pregnancies Terminated by Therapeutic Abortion by Age Group, Canada, 1976-1986

Age group	1976	1981	1982	1983	1984	1985	1986
Under 15	65.3	67.2	64.7	69.2	64.5	69.1	65.1
15-17	38.8	46.7	45.3	44.8	45.3	45.2	46.2
18-19	24.7	33.1	33.8	32.8	33.4	34.5	35.1
20-24	12.3	16.0	16.5	16.1	16.8	17.6	18.4
25-29	7.9	8.7	9.0	8.4	8.5	8.6	8.8
30-34	10.3	10.4	10.5	9.8	9.4	9.4	9.6
35-39	19.6	18.9	18.5	17.9	17.6	17.3	17.0
40-44	37.0	38.1	37.8	36.3	36.0	36.2	33.2

Note: These rates are not entirely accurate (too high) because terminated pregnancies in Newfoundland, but not births, are included. However, the distortion at the national level is not great.

For age groups at the height of fertility (20-29 years), few pregnancies end in therapeutic abortion (Table 9). The proportion of women who undergo their second therapeutic abortion is increasing with time. Part of the explanation lies in the lengthening of the observation period, but this trend could also lead to the observation that, with the progress of science, the danger of high-risk pregnancies, especially at advanced ages, is better understood. There are no explanations for the great regional disparities, but the quality of data-gathering may be called into question. Available statistics do not enable a clear assessment of the impact of abortion on fertility because of the perplexing absence of a correlation between abortion and fertility rates.

LONG-TERM CONSEQUENCES OF ADOLESCENT MARRIAGE AND FERTILITY

Background

Carl F. Grindstaff

The concern for teenage mothers and their children, shared by community, social, medical and educational groups throughout Canada and the U.S., has been increasing over the past 15 years. Quoting Arthur Campbell, Menken¹ states that the young teenager who gives birth to a child has,

...90 percent of her life's script written for her... Her life choices are few, and most of them are bad. Had she been able to delay the first child, her prospects might have been much different.
(pp: 167-168)

In this section, data from the 1981 Census are used to test this conclusion for Canadian women. Associations between early marriage and childbearing on the one hand, and subsequent economic status on the other, are presented. The intent is not to present economic status as a necessarily desirable objective by which more modest attainments, chosen by persons who have fixed their priorities in other ways, are downplayed. Rather, in a society in which members are becoming more and more solitary, it is necessary to highlight certain consequences of early childbearing.

The study group is comprised of approximately 175,000, 30 year-old Canadian women.² Women at age 30 were chosen for several reasons. Economically, a woman at this age is likely to be settled into an occupational and income pattern that is not likely to change for her in future years.³ Also, this age is the midpoint of an age grouping (25-35) when promotion, job security and work time are critical issues.⁴ At the same time, most Canadian women have completed their fertility by age 30, and it is improbable that any of their children would have left home to live on their own. As far as both childbearing and economic position then, 30-year old women would seem to be at an important juncture of their life cycles.

¹ Menken, Jane, A. 1981. "The Health and Demographic Consequences of Adolescent Pregnancy and Childbearing", in Chilman, A. *Adolescent Pregnancy and Childbearing*, pp. 157-205.

² Although approximately 180,000, 30 year-old ever-married women were enumerated in the 1981 Census, about 7,000 (4%) of them are not in the analysis due to missing information on age of oldest child at home and age at first marriage.

³ Goyder, 1981 - see footnote 46.

⁴ Thurow, Lester. 1981 "Why Women are Paid Less Than Men", *New York Times*, Sunday, March 8.

Grindstaff, Carl F. 1984 "Catching Up: The Fertility of Women Over 30 Years of Age, Canada in the 1970's", *Canadian Studies in Population*, Vol. 11, pp. 116-120.

Women who married as adolescents (about 48,000 women or 28 percent of the total) are compared to women who married at age 20 or later.⁵ The major variable studied is the age of the oldest child living at home at the time of the census – a proxy for timing of first birth and its association with current (1981) socioeconomic factors.⁶ About 38 percent of women who married as teenagers also gave birth as teenagers (Table 1). Less than 6 percent were without children by age 30, and only 8 percent had delayed childbearing until age 25 or later. Of women who married at age 20 or later, only 3 percent gave birth before the age of 20, but 18 percent were childless by age 30, and 46 percent had delayed their first child until age 25 or later.⁷

In a recent publication on international adolescent pregnancy and fertility, Canada ranked about average among developed nations in rates of teenage childbearing.⁸ But unlike much of the world, the number of children born to Canadian adolescents actually decreased from 39,628 in 1961 to 22,315 in 1985 (Table 2). Part of this decrease is related to the changing age structure of the population. Due to lower fertility in the 1960s, there were simply fewer teenagers by the late 1970s. Measurable conceptions (live births plus therapeutic abortions) also declined from nearly 55,000 in 1975 to just over 36,000 in 1985 (Table 3).

Numbers are important, but it is also necessary to examine rates, since rates are independent of the size and structure of the population, and allow comparisons to be made between years and groups. Fertility rates for teenagers (ages 15-19) have dropped substantially over the past 24 years. In 1961, the rate per 1,000 teenage women was 58.2. By 1985 it had declined to only 23.7, a level virtually identical to that for women aged 35 and over, and considerably lower than that for any other age group. Rates for married teenagers, traditionally the highest among married women of any age group, also declined from about 350 births per 1,000 women in 1971, to less than half that in 1981.

⁵ Age at first marriage is derived from data on date of birth and date of first marriage.

⁶ There are some apparent difficulties with these groupings, which, given the nature of census data, cannot be totally overcome. There is no information on the fertility of never-married women, and little on the adolescent fertility history of women who subsequently married at age 20 or later. For example, a woman may have given birth to a child while still an adolescent, and subsequently given it up for adoption. It cannot be determined from the census whether that child had ever been part of her day-to-day responsibilities. Similarly, the case of a woman who gave birth during a marriage, but who was not formally associated with the child at the time of the census because of custody arrangements following divorce, cannot be detected. Nor can the case of a childless woman who becomes a parent through marriage with a man who has custody of children from a previous marriage. While all of these possibilities can affect the analysis, it is assumed that they do not occur in sufficient magnitude to bias the observations.

⁷ Three percent of the women were first married at age 20 or older had a child over the age of 10 living with them. These children may have been born to the women before their first marriage, or born to the fathers before they married these women.

⁸ Jones, Elice F., et al. (7 other authors). 1986. *Teenage Pregnancy in Industrialized Countries*. New Haven, CT: Yale University Press, 310 pages.

Table 1. Demographic Breakdown of the Study Population: Women 30 Years of Age by Age at First Marriage and Age of Oldest Child at Home, Canada, 1981

Age at First Marriage	Number	Percent
All Women	198,885	
Total Ever-married Women ¹	172,875	100.0
Oldest Child Over 10	22,860	13.2
6 to 10	63,315	36.6
0 to 5	58,345	33.7
No children	28,355	16.4
19 and Under	48,265	100.0
Oldest Child Over 10	18,080	37.5
6 to 10	23,635	49.0
0 to 5	3,800	7.9
No children	2,750	5.7
20 and Over	114,575	100.0
Oldest Child Over 10	3,385	3.0
6 to 10	37,465	32.7
0 to 5	52,500	45.8
No children	21,225	18.5
Not Available ²	10,035	100.0
Oldest Child Over 10	1,395	13.9
6 to 10	2,210	22.0
0 to 5	2,055	20.5
No children	4,375	43.6
Total Never-married Women	26,010	
Without Children	23,750	
With Children	2,260	100.0
Oldest Child Over 10	440	19.5
6 to 10	1,085	48.0
0 to 5	735	32.5

¹ Ten percent of these women were divorced, separated or widowed at the time of the census. Among women currently married, 10% were with husbands who first married in a different year. This is an indication that the current marriage is a remarriage for one or both partners.

² These are women who were listed as married in the census files but whose age at first marriage was not given. There are several possible explanations for this omission. The simplest is that they may just have forgotten to include their age at marriage on the census form. More likely, given the relatively high rates of childlessness among these women (43%), they either had been married in the past but are no longer in a marriage, or they are cohabiting and do not have an "official" marriage date. (The Canadian census treats cohabiting couples as married.) It is also possible that some of these women had married and mistakenly indicated an ever-married status. Given the absence of information on age at first marriage, any analysis of this group will be limited and should be interpreted with caution.

Table 2. Total Live Births, Live Births to Teenagers and Percent Teenage of Total Births, Canada¹, 1961-1985

Year	Total Live Births	Live Births to Teenagers	Percent Teenage of Total Births
1961	460,109	39,628	8.6
1962	454,629	39,628	8.7
1963	450,324	40,518	9.0
1964	438,235	40,567	9.3
1965	403,855	41,740	10.3
1966	373,626	42,455	11.4
1967	358,050	41,265	11.5
1968	351,490	40,708	11.6
1969	356,647	40,930	11.5
1970	359,449	42,574	11.8
1971	349,420	40,480	11.6
1972	334,421	39,937	11.9
1973	331,467	39,852	12.0
1974	339,146	38,626	11.4
1975	348,110	39,188	11.3
1976	348,857	37,755	10.8
1977	350,290	36,294	10.4
1978	348,372	34,031	9.8
1979	355,894	31,956	9.0
1980	360,377	31,273	8.7
1981	361,216	29,330	8.1
1982	363,909	28,543	7.8
1983	364,760	25,604	7.0
1984	368,471	23,885	6.5
1985	367,227	22,315	6.1

¹ Excludes Newfoundland.

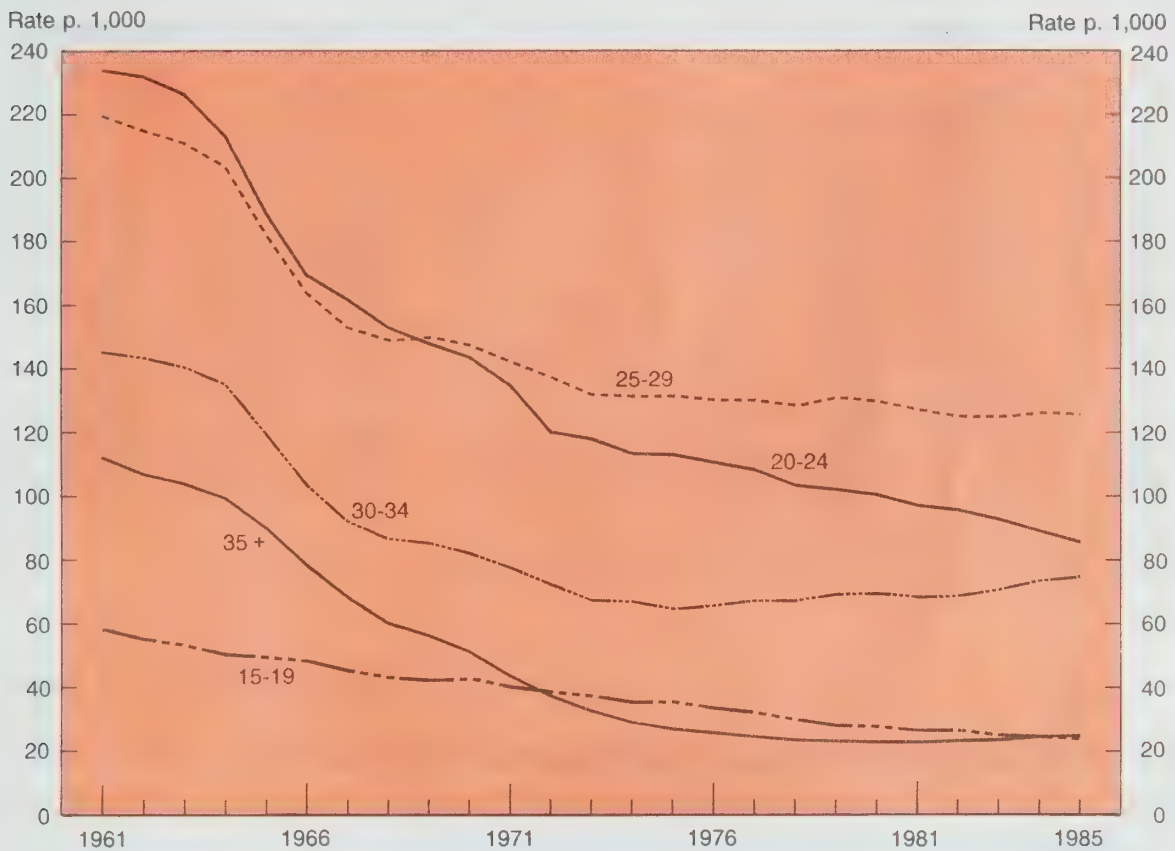
Source: 1961-1970, Statistics Canada, Catalogue 84-202.
1971-1985, Statistics Canada, Catalogue 84-204.

Despite overall decreases, teenagers will undoubtedly continue to become pregnant, so the questions related to the consequences for these young women are important ones. Aside from the socioeconomic consequences, there are also demographic outcomes - both short- and long-term - associated with teenage pregnancy.

Short-term Outcomes

One short-term outcome of early pregnancy is therapeutic abortion, a factor that explains some of the decrease in live births to teenage mothers. Between 14,000 and 20,000 teenage pregnancies per year have been terminated through therapeutic abortion since the mid-1970s (Table 3). Teenagers accounted for approximately 10 percent of all live births in the last half of the 1970s, but they underwent about 30 percent of all abortions. In 1985, only 6 percent of

Figure I
Age-specific Fertility Rates per 1,000 Women,
Canada, 1961-1985



all births were delivered to teenagers, but almost 23 percent of all abortions were performed on them. For every 100 measurable conceptions to teenagers, nearly 40 ended in therapeutic abortion. In contrast, for every 100 measurable conceptions to women aged 20 and over, only 12 percent ended in therapeutic abortion.

If the woman carries the pregnancy to term, then the outcome following birth is either adoption or motherhood. Ontario data show a dramatic shift in these outcomes.⁹ In the 1960s, 80 percent of single teenagers opted for adoption, but in the 1980s, about 80 percent are deciding to keep their babies. Reasons for this shift may relate to any or all of the following:

- (1) wider use of more reliable contraception, which has reduced the number of women exposed to early unwanted pregnancy;
- (2) an increase in common-law union formation;
- (3) greater social acceptance of unmarried mothers;
- (4) government financial assistance;

⁹ Comparable data are not available for Canada as a whole.

Table 3. ^{number} Births, Therapeutic Abortions and Total Measurable Conceptions to Teenagers, Canada, 1975-1985

Year	Total Therapeutic Abortions	Therapeutic Abortions to Teenagers	Percent of Total	Live Births to Teenagers	Total Number of Measurable Conceptions ¹
1975	49,311	15,357	31.1	39,188	54,545
1976	54,478	16,731	30.7	37,755	54,486
1977	57,564	17,581	30.5	36,294	53,875
1978	62,290	18,826	30.2	34,031	52,857
1979	65,043	19,607	30.1	31,956	51,563
1980	65,751	19,351	29.4	31,273	50,624
1981	65,053	18,269	28.1	29,330	47,599
1982	66,254	17,757	26.8	28,543	46,300
1983	61,750	15,287	24.8	25,604	40,891
1984	62,247	14,598	23.5	23,885	38,483
1985	60,928	13,849	22.7	22,315	36,164

¹ Live births plus therapeutic abortions.

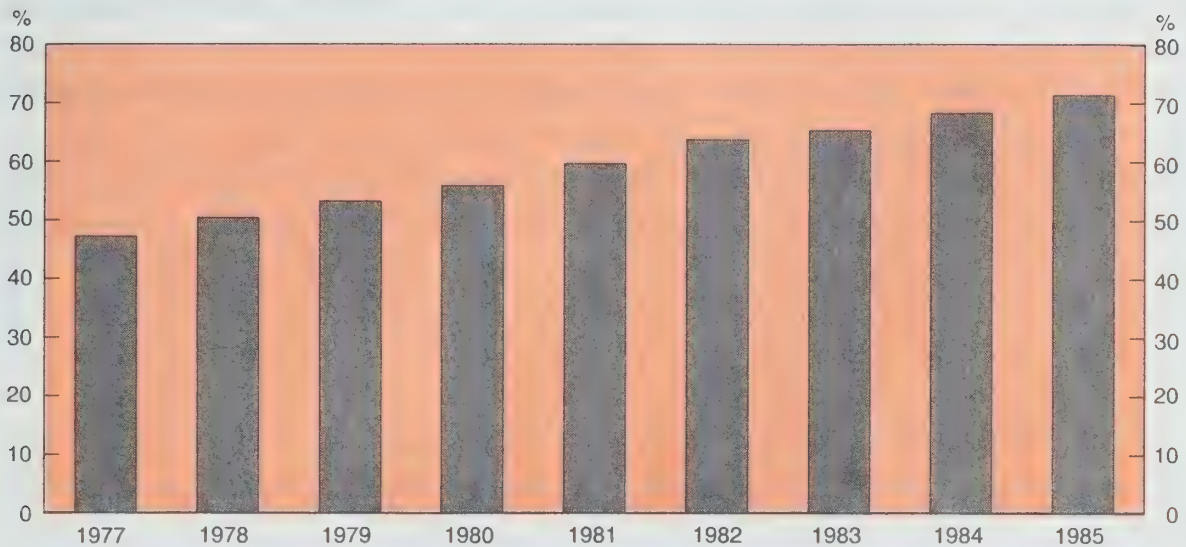
Note: Live births exclude Newfoundland whereas therapeutic abortions do not.

- (5) greater availability of child care outside of the home;
- (6) feelings of independence associated with greater economic opportunity for women.¹⁰

Some teenage mothers are already married when their children are born, but an increasing proportion of births occur to unmarried mothers (Chart 2). Fewer than half (47 percent) occurred to unmarried mothers in 1977, but the proportion had increased to 70 percent by 1985. Part of this increase is undoubtedly due to common-law union formation, an alternative to marriage that became more popular over the same period. For teenage mothers who are not living with a partner, the issue of lone-parenthood remains. The lives of these young mothers, especially if they are lone parents, often become complicated by welfare dependency during the years when occupational and educational goals could be developed and realized.¹¹ Canadian figures on the welfare dependency of teenage mothers are difficult to locate, but according to Ontario data, over 10,000 female single parents were receiving family benefit allowances during January of 1975.¹²

- ¹⁰ Bolton, Frank G. Jr. 1980. *The Pregnant Adolescent: Problems of Premature Parenthood*. London: Sage Library of Social Research.
- Veevers, Jean. 1977. *The Family in Canada*. Profile Studies, Vol. 5, Part 3, Ottawa: Statistics Canada, November.
- ¹¹ Baldwin, Wendy and Virginia S. Cole. 1980. "The Children of Teenage Parents", *Family Planning Perspectives*, Vol. 12, No. 1, January/February, pp. 34-43.
- ¹² Guyatt, Doris. 1976. "Adolescent Pregnancy: A Study of Pregnant Teenagers in a Suburban Community in Ontario", Unpublished D.S.W. Thesis, University of Toronto.

Figure II
Prevalence Rate of Adolescent Births to Single Mothers
Among All Adolescent Births, Canada, 1977-1985



Long-term Demographic Outcomes

Most research on teenage marriage and childbearing has focused on the short-term effects that appear one to two years following the birth. Equally important to consider are the long-range demographic outcomes. Dr. Marion Powell¹³, a University of Toronto professor and physician, has written:

The time of the first birth is the single most important factor in determining future fertility patterns of women. This first birth has the greatest potential for social change. If all unplanned first births could be prevented, illegitimacy would be eliminated almost entirely and the number of babies born to teenagers drastically reduced (pp. 174-175).

A U.S. study¹⁴ showed that even with highly accessible contraceptive technology, women who begin childbearing in their teens have more children, have them closer together, and have more unwanted children than women who wait until at least their twenties to start a family. Furthermore, several authors have indicated that adolescent mothers are more likely than other mothers to have repeat unwanted pregnancies.¹⁵

¹³ Powell, Marion. 1974. "The Pregnant School Girl", in Benjamin Schlesinger (ed.), *Family Planning in Canada: A Source Book*. Toronto: University of Toronto Press, pp. 174-175.

¹⁴ Trussel, James and Jane Menken. 1981. "Early Childbearing and Subsequent Fertility", in Furstenberg, et al., *Teenage Sexuality, Pregnancy and Childbearing*, pp. 234-250.

¹⁵ Bolton, Frank G. Jr. 1980. *The Pregnant Adolescent: Problems of Premature Parenthood*. London: Sage Library of Social Research.
Furstenberg, Frank, F. Jr. 1976. *Unplanned Parenthood: The Social Consequences of Teenage Childbearing*. New York: The Free Press, 293 pages.

U.S. data also indicate that about half of adolescent marriages during the 1970s occurred after the conception of a child. Early childbearing in this case can be a factor in subsequent marital dissolution, especially if the union was entered into for the sake of the pregnancy. The younger the woman at the birth of her first child, the more likely her marriage will end in divorce.¹⁶ Fielding¹⁷ found that teen marriages break up two to three times more often than marriages begun after age 20, and the Guttmacher Institute¹⁸ reported a 60 percent risk of divorce within six years for teenagers who were pregnant at the time of marriage. In longitudinal studies of mostly black teenagers in the metropolitan areas of New York and Baltimore, Presser¹⁹ and Furstenberg²⁰ came to similar conclusions about the social consequences of adolescent fertility.

Generally, childbearing restricts the non-maternal activities of the mother, who is at risk of being the only adult in the family, even 15 years after the birth of her child.²¹ Some of these difficulties may be ameliorated if the young mother has parental resources to fall back on²² but these are not always available. The following quote from a national U.S. study summarizes the scope of the sociodemographic difficulties presented to the adolescent mother. Card and Wise²³ write:

The repercussions of teenage childbearing are long-lasting. The young parents acquire less education than their contemporaries; they are more often limited to less prestigious jobs, and the women,

¹⁶ Bacon, Lloyd. 1974. "Early Motherhood, Accelerated Role Transition and Social Pathologies", *Social Forces*, Vol. 52, pp. 333-341.

McCarthy, James and Jane Menken. 1981. "Marriage, Remarriage, Marital Disruption and Age at First Birth", in Furstenberg, ed., *Teenage Sexuality, Pregnancy and Childbearing*, Philadelphia: University of Pennsylvania Press, pp. 234-250.

¹⁷ Feilding, Jonathan, E. 1978. "Adolescent Pregnancy Revisited", *The New England Journal of Medicine*, Vol. 299, No. 16, pp. 893-896.

¹⁸ Guttmacher Institute. 1976. "11 Million Teenagers: What Can be Done About the Epidemic of Adolescent Pregnancies in the United States", *Alan Guttmacher Institute*, New York, 64 pages.

¹⁹ Presser, Harriet. 1980. "Social Consequences of Teenage Childbearing", in C. Chilman, *Adolescent Pregnancy and Childbearing*, Chapter 10, pp. 249-266.

²⁰ Furstenberg, Frank, F. Jr.; Richard Lincoln and Jane Menken (eds.). 1981. *Teenage Sexuality, Pregnancy and Childbearing*. Philadelphia: University of Pennsylvania Press, 423 pages.

²¹ Kellam, Sheppard G., Rebecca G. Adams, Hendricks Brown and Margaret Ensminger. 1982. "The Long-Term Evolution of the Family Structure of Teenage and Older Mothers", *Journal of Marriage and the Family*, Vol. 44, No. 3, pp. 539-554.

²² Chilman, Catherine S. 1983. *Adolescent Sexuality in a Changing American Society*. New York: John Wiley and Sons, 334 pages.

Furstenberg, Frank Jr. 1980a. "Burdens and Benefits: The Impact of Early Childbearing on the Family", *Journal of Social Issues*, 36(1): 64-87.

²³ Card, J. and L. Wise. 1978. "Teenage Mothers and Teenage Fathers: The Impact of Early Childbearing on Parents Personal and Professional Lives", *Family Planning Perspectives*, Vol. 10, No. 4, July/August, pp. 199-205, O'Donohue.

to more dead-end ones. Their marriages are less stable than are those of their contemporaries who postpone childbearing. Couples who become parents as teenagers expect to have more children than they want (p. 205).

Long-term Socioeconomic Outcomes

The socioeconomic outcomes of adolescent marriage and fertility are mostly observable in the long-term. Not until age 30 have most women completed their childbearing and attained a level of education that is not likely to change.²⁴ There is a substantial body of demographic literature that argues an economic theory of fertility, both at the individual and the societal levels.²⁵ Although causation between economics and childbearing is not clear, it has been observed that, at any age, the fewer children a woman has, the more likely she is to have a higher income, more education and a higher occupational standing.²⁶ Furthermore, independent of the *number* of children a woman has, the *timing* of the first birth may have economic consequences. As Trussel²⁷ has pointed out:

Ideally, it would be helpful to the individual woman (and to society) to find the economic differences of becoming pregnant while a teenager versus not becoming pregnant. We may call the microeconomic consequences the economic differential between two average women, who are identical, except that one had become pregnant in her teens. The impact of many such pregnancies produces a macroeconomic effect (p. 221).

Education, occupation, income, and some aspects of labour force participation are used as measures of economic status in this study. **The cause and effect between early family formation and later economic status, however, is difficult to determine. For example, are single childless women more likely to have advantageous economic circumstances because they are unmarried and**

²⁴ Balakrishnan, T.R., G. Edward Ebanks and Carl F. Grindstaff. 1979. *Patterns of Fertility in Canada, 1971*. Ottawa: Statistics Canada, 269 pages.

²⁵ Becker, Gary S. 1960. "An Economic Analysis of Fertility", in National Bureau of Economic Research, *Demographic and Economic Change in Developed Countries*, pp. 209-231, Princeton: Princeton University Press.

Easterlin, Richard. 1978. "What Will 1984 Be Like? Socioeconomic Implications of Recent Twists in the Age Structure", *Demography*, Vol. 15, No. 4, pp. 397-432.

Ram, Bali and Joseph Norland. 1982. "A Research Note on the Application of the Butz/Ward Fertility Model to Canadian Data", Paper presented at the American Public Health Association Meetings, Montreal, November, 19 pages.

²⁶ Balakrishnan, T.R., G. Edward Ebanks and Carl F. Grindstaff. 1979. *Patterns of Fertility in Canada, 1971*. Ottawa: Statistics Canada, 269 pages.

Ryder, Norman and Charles Westoff. 1971. *Reproduction in the United States, 1965*. Princeton, New Jersey: Princeton University Press.

²⁷ Trussel, James. 1980. "Economic Consequences of Teenage Childbearing", in Chilman *Adolescent Pregnancy and Childbearing*, Chapter 9, pp. 221-247.

childless, or are they single and without children because they have been pursuing education and work-related achievement? Would reducing the proportion of teenagers with children increase fifteen years later the fraction of women with higher economic statuses? No attempt is made here to untangle these cause and effect issues. We simply ask: what can be expected in terms of certain socio-economic characteristics for women who begin childbearing at an early age?

Education and Occupation

Formal education is the single most important predictor of socioeconomic position, particularly of income and occupation, in modern industrial society.²⁸ The measure of educational attainment used here is the proportion of women who completed a university degree (15 percent overall).

As shown in Chart 3, the earlier the marriage and the earlier the childbearing, the lower the incidence of university completion by age 30. Educational attainment was substantially higher among women who married after the age of 20 than among women who married as teenagers. Age at first birth was related to the amount of formal education obtained within each marital/age group. Even if women married after the age of 20, an adolescent first birth was associated with lower levels of university graduation. Educational attainment is similar between women who had no children and women who began childbearing at age 25 or later, which is not surprising, since most education is completed by age 25. A delay in marriage and childbearing until after adolescence, and probably until at least age 25, is associated with gain in the educational credentials that bring more economic independence – if this is a desired outcome. As Presser²⁹ has indicated:

To the extent that marriage, schooling and employment are socially advantageous to women, and women themselves have such aspirations, the data indicate that teenage motherhood has negative social consequences. (p. 265)

These economic outcomes also appear among husbands.³⁰ Husbands had slightly higher levels of educational attainment than their wives (Table 4),

²⁸ Duncan, O.D., D.L. Featherman and B. Duncan. 1972. *Socioeconomic Background and Achievement*. New York: Seminar Press.

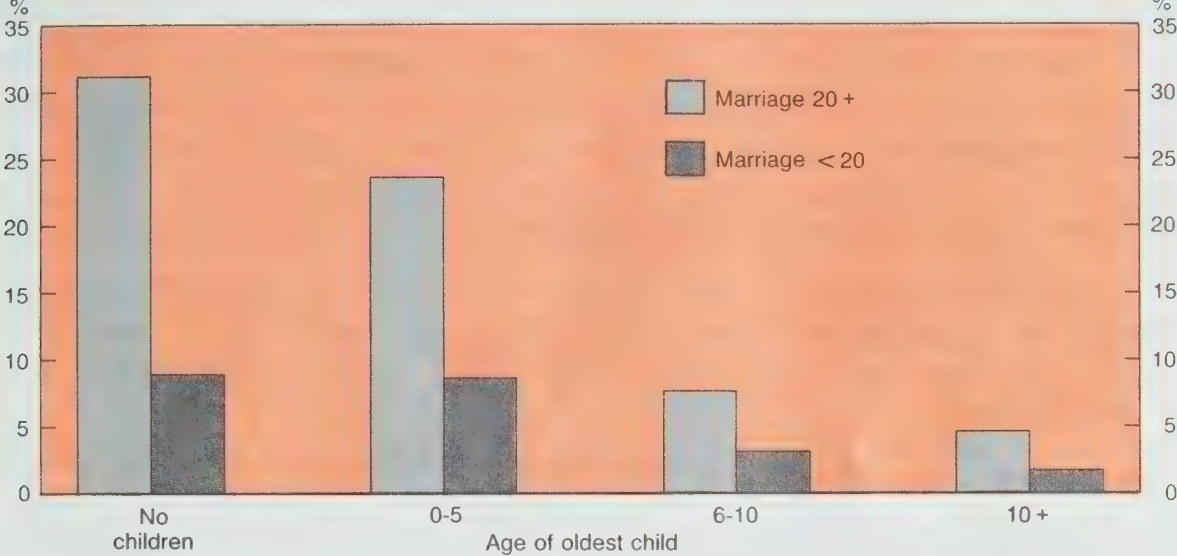
Statistics Canada. 1983. "Discussion Paper: Plans for the 1986 Census", Unpublished paper, August.

Trussel, James and John Abowd. 1980. "Teenage Mothers, Labour Force Participation and Wage Rates", *Canadian Studies in Population*, Vol. 7, pp. 33-48.

²⁹ Presser, Harriet. 1980. "Social Consequences of Teenage Childbearing", in C. Chilman, *Adolescent Pregnancy and Childbearing*, Chapter 10, pp. 249-266.

³⁰ No attempt was made to determine the ages of the men for this analysis, but generally men are about two years older than women at marriage. The number of men is slightly fewer (about 6%) than the number of women mainly due to the fact that some ever-married women no longer have a husband present.

Figure III
Prevalence Rate of University Degree Holders Among Women
30 Years of Age, by Age at First Marriage and Age at First Birth, 1981



but they were three times more likely to have acquired a university degree if they married when their wives were older than 19 (24.8 percent) than if they were 19 or younger (8.1 percent). University completion among husbands was about three times more likely if there were no children, or if the oldest child was younger than six, than if the oldest child was older than ten.

Whereas education is an achieved and irreversible state, occupation can change at any time. This makes it a more difficult variable to analyse, especially for women, since women are less likely to be in the labour market in the first place, and are more likely to move in and out as a result of childbearing. Chart 3 shows the proportion of women in “professional” occupations; that is, in management and administration, science, teaching, and medicine and health. Age at marriage seems to be strongly associated with occupation as well as with education. Only 16 percent of women who married before the age of 20 were in a professional occupation, compared with 37 percent of women who married at age 20 or later.

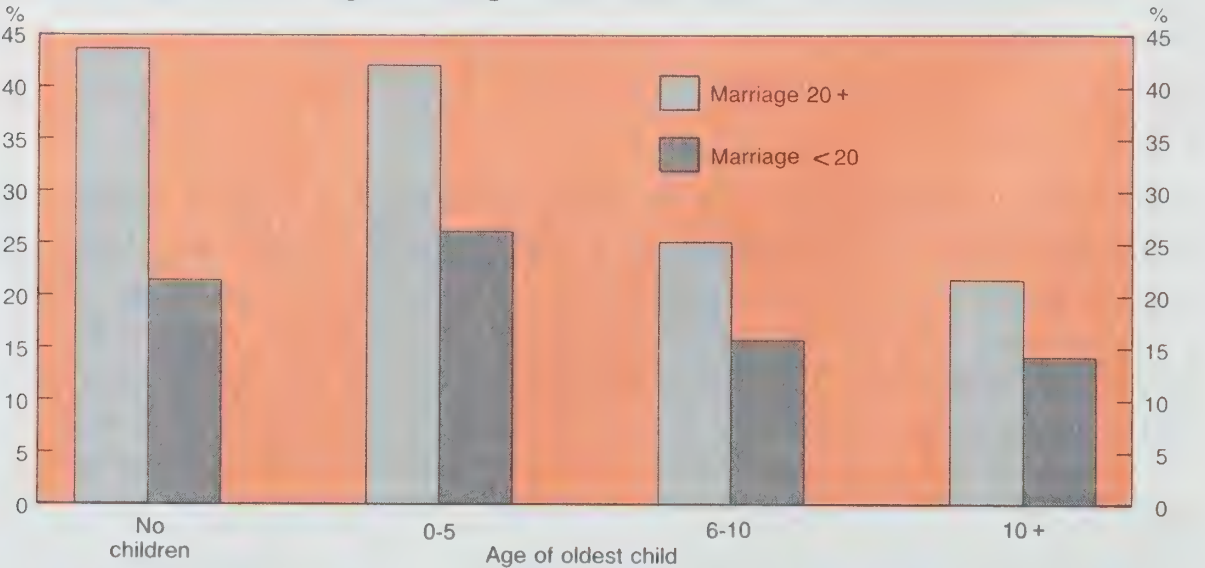
Similarly, the earlier her first child was born, the less likely a woman was to have a professional occupation. This is particularly evident where the oldest child in the family was over the age of six. The lowest percentage of professionals (14 percent) was found among women who both married and became mothers as adolescents. The highest percentages were among women who married at age 20 or later and either had no children (42 percent), or children under the age of six (43 percent). Women who married as adolescents but had no children (a relatively small number) were only half as likely to be in the upper occupational echelons. Hence, early marriage, independent of early childbearing, seems to have a clear association with occupational status at age 30.

Table 4. Prevalence Rate of Completed University Education and Professional Status among Husbands of 30-Year-old Women, Canada, 1981

	Completed University Education	Professional Occupation
Total Husbands	20.0	29.4
Women Who Married at Age 19 or Younger	8.1	18.9
Oldest Child Over 10	4.3	13.9
Age 6 to 10	8.8	20.1
Age 0 to 5	15.8	27.9
No Children	14.4	24.3
Women Who Married at Age 20 or Older	24.8	33.7
Oldest Child Over 10	9.3	20.8
Age 6 to 10	13.7	24.6
Age 0 to 5	29.5	38.2
No children	33.8	40.0

Note: Each figure is a percentage in the subcategory only. For example, for every 100 husbands of 30 year-old women married to women who were 20 or older at the time of marriage, and without children, 33.8 obtained a university degree.

Figure IV
Prevalence Rate of Professionals Among Women 30 Years of Age, by Age at First Marriage and Age at First Birth, 1981



The timing of birth and marriage is also associated with the husband's place in the occupational structure (Table 4). There were approximately 161,000 families with husbands present, 96 percent of whom were in the labour force. About 30 percent of husbands were in professional occupations (mostly management, administration and science, in contrast to professional women, who were mainly in medicine, health and teaching). If women first married before the age of 20, then their husbands, who were probably also young at the time of marriage, were about half as likely to be in professional positions (19 percent) in 1981 than if marriage was at age 20 or later (34 percent). If a child was born during the mother's adolescence, then husbands were about half as likely to hold professional jobs than if there were no children, or an oldest child under the age of six, within each of the marital/age groups.

Labour-force Participation and Earnings

Presser³¹ argued that postponement of childbearing gives "...a greater chance to work prior to motherhood, which seems to be an important determinant of subsequent employment". Among Canadian women, age at marriage was not strongly associated with labour force participation, but presence of children was. Women without children had substantially higher rates of employment, and were more likely to have a full-time position.³² Relatively more women who began their childbearing as adolescents were unemployed, but the variations were small. **Childbearing at any age seems to restrict labour-force activities.**

Since labour-force participation is one of the primary determinants of income, differences in income attainment among women followed a similar pattern. Although it is usually expressed as one statistic, income originates from a variety of sources. It may be earned (hourly or in salary); it may come from dividends (stocks and bonds) and investments (house rentals, pensions); or it may come from social agencies and programmes (welfare, child allowance). Income from all sources, reported individually by 30 year-old women, and aggregated with the incomes of other family members, is studied here. Nearly 28 percent of all ever-married 30-year old women had no income because many of them were not in the labour force. This varied from 36 percent of women with an oldest child aged 6 to 10, to only 7 percent of the women with no children.

Women who had their first child at age 25 or later had somewhat higher incomes than women who began their childbearing earlier, but the differences

³¹ Presser, Harriet. 1980b. "Social Consequences of Teenage Childbearing", in C. Chilman, *Adolescent Pregnancy and Childbearing*, Chapter 10, pp. 249-266.

³² Respondents in the census were asked to report whether most of the weeks in 1980 were full work weeks or less than 30-hour work weeks. Full-time work was considered 49-52 weeks (Census Dictionary, pp. 16, 32, 55-56).

Table 5. Prevalence Rate of Selected Labour Force Activities among 30-Year-old Women, Canada, 1981

	In the Labour Force			Never Worked
	Employed	Full-time ¹	Unemployed	
Total	54.3	70.1	5.0	4.2
Age at Marriage, 19 or Younger	51.6	67.2	5.6	6.6
Oldest Child Over 10	51.6	66.9	6.6	8.9
Age 6 to 10	48.9	64.3	5.0	6.0
Age 0 to 5	48.9	64.2	4.5	2.2
No Children	77.6	86.9	5.1	3.3
Age at Marriage, 20 or Older	54.6	70.0	4.8	3.1
Oldest Child Over 10	51.9	71.6	7.7	6.9
Age 6 to 10	46.5	61.4	4.9	5.3
Age 0 to 5	49.1	64.5	4.7	2.0
No Children	82.9	88.0	4.1	1.0

Note: Each figure is a percentage in the subcategory only (see Table 4).

¹ Calculated for employed women only.

were not large (Table 6). Among women who became mothers later, 30 per cent had incomes in excess of \$10,000, compared with less than 25 percent of the mothers who began their childbearing earlier in life. The major difference in income attainment was between women with children and women who were childless. Only 9 percent of the women who had a child before the age of 25 were in the high income bracket of \$15,000 or more, compared with about 15 percent of the women with a child under the age of six, and 40 percent of the women with no children. *It appears that childbearing and childrearing disrupt income earning continuity.*³³

Chart 4 gives a concise picture of the advantage of ever-married, childless women in commanding a high income. Among women who married during adolescence but remained childless, 30 percent received more than \$15,000, and 10 percent received \$20,000 or more. Later marriage, however, was associated with high levels of income for women with no children - 40 percent received \$15,000 or more, and 22 percent received \$20,000 or more. *It would seem that the major association with income is the presence of children, regardless of the timing of the first birth.*

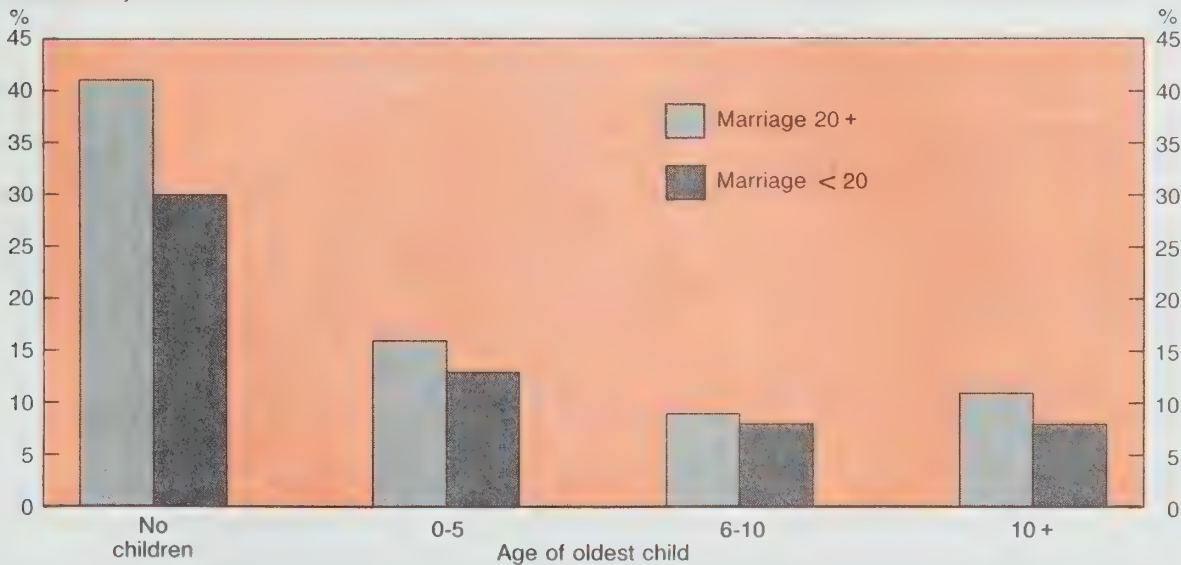
³³ Goyder, John. 1981. "Income Differences Between the Sexes: Findings from a National Canadian Survey", *Canadian Review of Sociology and Anthropology*, Vol. 18, No. 3, pp. 321-338.

Table 6. Income of 30-Year-old Women, by Age of oldest child, and Age at Marriage, Canada, 1981

	Percentage in the Group			
	Less than \$10,000 ¹	\$10,000 to less than \$15,000	\$15,000 to less than \$20,000	\$20,000 or more
Total	68.5	15.3	8.9	7.3
Age at Marriage, 19 or Younger	76.3	13.8	6.5	3.4
Oldest Child Over 10	77.4	14.2	5.7	2.7
Age 6 to 10	79.4	12.3	5.4	2.9
Age 0 to 5	72.7	14.1	8.4	4.8
No Children	46.2	24.0	19.8	10.0
Age at Marriage, 20 or Over	66.0	15.7	9.6	8.7
Oldest Child Over 10	71.3	17.7	7.2	3.8
Age 6 to 10	79.5	11.9	5.3	3.3
Age 0 to 5	68.9	15.2	8.7	7.2
No Children	34.6	24.1	19.0	22.3

¹ Includes zero and negative income.

Figure V
Prevalence Rate of Women Earning \$15,000 or More Among Women 30 Years of Age, by Age at First Marriage and Age at First Birth, Canada, 1981



Both the timing of marriage and the beginning of childbearing are strongly associated with family income. Again, the major difference was between families with children and families without (Table 7). Having had a child as an adolescent was associated with lower than average family income for women at age 30, but not any lower than for women who had their first child between the ages of 20 and 24. Women who delayed their fertility until age 25 or later, or had no children by age 30, received the highest average family incomes, especially childless ever-married women. Age at marriage was also related to family income. **The later the marriage, the higher the average family income - even controlling for the age of the oldest child in the family.**

Table 7. Average Income, Average Family Income and Individual Income as a Percent of Family Income for 30-Year-old Women, Canada, 1981

	Average Income ¹	Average Family Income	Income as a Percent of Family Income
	(dollars)		
Total	9,549	26,322	36.3
Age at Marriage, 19 or Younger	8,052	23,663	34.1
Oldest Child Over 10	7,726	22,024	35.1
Age 6 to 10	7,611	23,865	31.9
Age 0 to 5	8,476	25,420	33.3
No Children	12,110	30,271	40.0
Age at Marriage, 20 or Older	9,999	27,449	36.4
Oldest Child Over 10	8,267	24,717	33.4
Age 6 to 10	7,742	23,810	32.5
Age 0 to 5	9,372	27,938	33.5
No Children	14,093	33,099	42.6

¹ Excludes zero income.

It should be noted that overall, women contributed about 36 percent of the total family income. This ranged from a low of 32 percent for women who married before turning 20 and whose oldest child was aged 6 to 10, to 43 percent for childless women who married at 20 or later.

Cultural Diversity

Given the ethnic diversity of the Canadian population, it is worthwhile to examine early family formation in terms of ethnic variation. Comparisons between French and English groups (measured by mother tongue, ethnicity and province of residence) reveal some surprising differences. Women of French mother tongue and ethnicity had demographic characteristics theoretically associated with higher levels of current socioeconomic standing. A smaller proportion of these women (about 24 percent) than the English women (about 33 percent) married as adolescents, and among those who did, a smaller proportion of their children were born during adolescence (Table 8). The same pattern can also be observed between Quebec and Ontario women. But even though these demographic characteristics would suggest an advantage in educational attainment, French/Quebec women showed lower than expected levels of university completion (Table 8).

Where there were no children in the family, approximately 32 percent of the British ethnic group, but only 16 percent of the French ethnic group, had completed university. Even among women with advantages in later marriage (after age 19) and later births (after age 25), university degrees among English women proportionately outnumbered the French by about two to one. The socioeconomic consequences of early marriage and fertility however were observable within each group of French and English women, whether the groups were ethnically, linguistically or regionally defined. In all cases, university graduation was higher the later the marriage and the later the first birth.

Table 8. Prevalence Rate of Completed University Education among 30-Year-old Women, Canada, 1981

	Mother Tongue		Ethnicity		Province	
	English	French	British	French	Ontario	Quebec
Total	16.0	9.8	14.8	9.6	15.7	10.9
Age at Marriage, 19 or Younger	3.5	2.6	3.2	2.4	3.4	2.4
Oldest Child Over 10	1.7	1.6	1.6	1.1	1.4	1.5
Age 6 to 10	3.2	2.6	3.1	2.8	3.1	1.8
Age 0 to 5	9.5	5.0	8.3	5.1	8.7	6.7
No Children	9.9	5.3	7.2	5.0	9.6	6.7
Age at Marriage, 20 or Older	22.0	11.4	20.4	11.4	21.3	12.8
Oldest Child Over 10	5.2	2.5	3.6	2.3	4.4	2.5
Age 6 to 10	8.0	6.2	6.5	6.1	7.6	5.9
Age 0 to 5	27.3	13.7	25.7	13.7	26.1	15.5
No Children	35.5	17.1	33.3	17.1	34.0	20.1

Note: Each figure is a percentage in the subcategory only (see Table 4).

Conclusion

Giving birth as an adolescent was associated with relatively lower individual and family incomes for women by age 30, but not any lower than for women who had their first child between the ages of 20 and 24. Women who delayed their childbirth until age 25 or later or had no children by age 30, had the highest incomes. The major differences in both income and labour force participation were between women (married or unmarried) who had children *at any time*, and women without children. Similarly, the later the marriage the higher the income, regardless of age at first birth.

These findings confirm other evidence on the socioeconomic consequences of early family formation. Being aggregate in nature, there are a variety of instances to which they would not apply. For example, there are cases in the census of women who married and became mothers as teenagers and who, by age 30, had completed university, earned a high income, and were firmly entrenched in fairly prestigious occupations. But although these are real possibilities, they are less likely. **Most women who married and began to bear children as teenagers appeared to be in less secure economic circumstances by age 30: they were more likely to be engaged in lower status work, to have fewer years of completed formal education, and to receive less financial compensation.**

These socioeconomic consequences do not lead us to conclude that these women are not fulfilled. We cannot assume that “success” as it is defined here in purely economic terms can capture the whole range of intangibles that contribute to life satisfaction. But although the external criteria considered here are insufficient to completely determine life advantages at age 30, they cover a good part of the indicators by which “success” is judged, rightly or wrongly, in urban-industrial societies.

GLOSSARY¹

Census year: A neologism patterned after “fiscal year”. In Canada, it refers to the 12-month period between June 1 of one year to May 31 of the following year. It can equally designate the year during which a census is held.

Cohort: A group of individuals or couples who experience the same event during a specified period. For example, there are birth cohorts and marriage cohorts.

Cohort, fictitious: An artificial cohort created from portions of actual cohorts present at different successive ages in the same year.

Crude rate: Relates certain events to the size of the entire population. For example, the crude birth rate for Canada is the ratio of the number of births in Canada in a year to the size of the Canadian population at mid-year. Crude death rates and crude divorce rates are calculated in the same way.

Current index: An index constructed from measurements of demographic phenomena and based on the events reflecting those phenomena during a given period, usually a year. For example, life expectancy in 1981 is a current index in the sense that it indicates the average number of years a person would live if he or she experienced 1981 conditions throughout his or her life.

Dependency ratio: A ratio that denotes the dependency on the working population of some or all of the non-working population.

Depopulation: The decline in the population of an area through an excess of deaths over births (not to be confused with the depletion of an area through emigration).

Endogamy: Marriage within a specific group.

Endogenous: Influences from inside the system.

Excess mortality: In differential mortality, the excess of one group’s mortality rate over another’s (see Sex ratio).

Exogamy: Marriage outside of a specific group.

Exogenous: Influences from outside the system.

¹ For further information consult the following:

International Union for the Scientific Study of Population, **Multilingual Demographic Dictionary**, Ordina Editions, Liège, 1980; Pressat, Roland. **The Dictionary of Demography**, ed. Christopher Wilson. Oxford, England: New York, NY, USA.

Fertility: Relates the number of live births to the number of women, couples or, very rarely, men.

Fertility, completed: The cumulative fertility of a cohort when all its members have reached the end of their reproductive period.

Fertility, cumulative: Total live births from the beginning of the childbearing period until a later date.

Frequency: Frequency of occurrence within a cohort of the events characterizing a particular phenomenon.

Frequency, cumulative: Total frequency from the start of the period of exposure to risk of event up to a later date.

Infant mortality: Mortality of children less than a year old.

Intercensal: The period between two censuses.

Life expectancy: A statistical measure derived from the life table that indicates the average years of life remaining for a person at a specified age, if the current age-specific mortality rates prevail for the remainder of that person's life.

Life table: A detailed description of the mortality of a population giving the probability of dying and various other statistics at each age.

Migration: Geographic mobility between one locale and another.

Natural increase: A change in population size over a given period as a result of the difference between the numbers of births and deaths.

Neonatal mortality: Mortality in the first month after birth (part of infant mortality).

Net migration: Difference between immigration and emigration for a given area and period of time.

Nulliparous: Pertaining to a woman or a marriage of zero parity (has not produced a child).

Parity: A term used in reference to a woman or a marriage to denote the number of births or deliveries by the woman or in the marriage. A two-parity woman is a woman who has given birth to a second-order child.

Population growth: A change, either positive or negative, in population size over a given period.

Population movement: Gradual change in population status over a given period attributable to the demographic events that occur during the period. Movement here is not a synonym for migration.

Post-neonatal mortality: Mortality between the ages of one month and one year.

Prevalence: Number of persons with a certain characteristic in a given group of persons.

ERRATA

On page 3, first paragraph, please read “the decline in the **annual** growth rate for that half . . .”

On page 14, sixth paragraph, please read “For female cohorts, these proportions were between **5.8 and 7.1** per cent.”

On page 25, Table 11 refers to the year **1968**, and Table 12, to the year **1985**.

On page 32, sixth paragraph, “(Table 15)” should read “(Table **16**)”.

On page 34, sixth paragraph, please read “Other immigrants are less endogamous: natives of British colonies in Africa (**61%**), natives of British colonies in South Asia (**65%**), Poles (**52%**), Portuguese (**59%**), and South Americans (**57%**).”

On page 39, third paragraph, please read “Some minor extrapolations **based on Table 20** indicate that . . .”

On page 137, footnote 3 should read “Goyder, 1981, see footnote **33**.”

On page 147, second paragraph, please read “Chart **4**”.

On page 150, second paragraph, please read “Chart **5**”.



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Current Demographic Analysis



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Demography Division

Report on the Demographic Situation in Canada 1990

Current Demographic Analysis

Jean Dumas
Demography Division

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The reader should be reminded that the publication of successive versions of the *Report on the Demographic Situation in Canada* does not render previous versions obsolete. Rather, since a different substantive topic is taken with each issue, the volumes actually complement each other. Furthermore, certain of the basic demographic topics are covered in serial format, making the volumes a valuable source of time series data on the Canadian demographic scene.

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PREFACE

Canadian society is realizing more and more that, at the heart of many social and economic problems which we face on a daily basis, questions of a demographic nature are of crucial importance.

During the 1980s three reports were produced on Canada's demographic developments. Given the increasing importance of these issues, the agency has now decided to publish an annual report highlighting the evolution of the important demographic trends that affect Canada in terms of numbers, composition, structure and population dynamics. This report, presented in chronicle form, focuses attention on the levels, trends and interpretation of these principal indicators. It also provides valuable comparisons with other countries at a similar level of development.

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HIGHLIGHTS

PART I

The growth rate of the Canadian population rose slightly in 1989. It now stands at 1.3%. This small increase has resulted both from an increase in the number of births, and in the number of immigrants, over the course of 1988 and 1989.

XXX

Population growth was uneven across the country. While the negative growth in 1988 for Saskatchewan is notable, British Columbia posted a net population increase of 22.8 per thousand in the same year. Growth in Ontario was only 16.1 per 1,000.

XXX

The number of marriages increased slightly (3.1%) with respect to 1987, mostly as a result of an increase in the number of first marriages. Consequently, marriage indices are on the rise in all provinces and territories. Marriages, however, are still occurring later in life.

XXX

As expected, both the number of divorces (down by 11,000) and the divorce rate (down by 14%) declined in 1988. A corresponding decline could well occur in 1989.

XXX

At the national level, fertility remained stable. A slight increase was detected in Quebec however, especially at birth orders 1 and 2. Even though the fertility rate declined slightly in the rest of Canada, it must be remembered that cross-sectional measures of fertility tend to underestimate the true reproductive behaviour of cohorts.

XXX

The incidence of triplet births has increased substantially over the recent past. This phenomenon is primarily the result of fertility-promoting treatment among sub-fertile couples.

XXX

A life table calculated from the most recent available data shows that the impressive gains in life expectancy experienced over the last decade are beginning to slow.

XXX

Infant mortality continues to decline slowly. On the other hand, post-neonatal deaths (after 1 month of life) are on the rise. The rationale for this

increase can be found in the apparent postponement of deaths that previously would have occurred soon after birth.

XXX

While AIDS is not yet a major cause of death in Canada, it is realistic to assume some impact on mortality in the near future.

XXX

Immigration over the 1988-1989 period reached nearly its highest level since 1974. As over the preceding few years, the origin of immigrants remained strongly centred around the Asian countries.

XXX

Net internal migration was negative over the last few years in Manitoba and Saskatchewan. Even Ontario experienced a negative balance of 6,500 persons in 1989. Alberta's net migration was nil, while British Columbia benefitted from a net gain of 40,000 persons.

XXX

PART II

Nearly four centuries of change have shaped Canada and the United States – two countries which look alike and occupy most of the North American continent. But if some demographic characteristics are similar, there exist important differences between the two countries.

XXX

Both countries received the majority of their immigrants from Europe up until World War I. But since World War II, the Asian countries have begun to dominate.

XXX

The U.S. non-white population is growing quickly due to higher rates of natural increase and to a strong influx of immigrants.

XXX

The age structures of the Canadian and American populations are very similar. The white U.S. population is, however, a little older.

XXX

Since World War II, the conditions of immigration have differed between the two countries. In Canada, the immigrant stream appears as a succession of peaks and troughs, whereas in the U.S., it appears as a slow and nearly constant progression in numbers.

Judged by their respective immigration rates, Canada has always been more welcoming than the United States.

XXX

The foreign born carry much more weight in the total population of Canada (16%) than in the United States (6%).

XXX

In the United States, people marry (and remarry) much more than in Canada. In addition, marriages are less concentrated around the mean age in the United States.

XXX

Americans not only marry more, but they divorce more. Break ups in second and third-or-more marriages are much more frequent in the United States (27%) than in Canada (12%) because of a long tradition of divorce.

XXX

According to cross-sectional indices, the fertility of the American population appears slightly higher than that of Canada. A closer look reveals that white Americans have a slightly lower cohort completed fertility rate.

XXX

Statistics show that the fertility rate among unmarried women is higher in Canada than in the U.S. On the other hand, abortion is much more frequent in the U.S., and the abortion rate among whites is quite high.

XXX

At the national level, the mortality rate has been higher in the U.S. since 1960. The life expectancy gap is currently about one full year for each sex. While the reasons for this discrepancy are not abundantly clear, infant mortality, which plays a major role in the computation of the index, is much higher in the U.S. than in Canada.

XXX

Internal migration flows in the U.S. have been characterized for decades by strong flows from the centre to the West and the South. Canada's dominant flow has also been westward, with resultant losses for the Maritime and Prairie provinces.

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DEMOGRAPHIC ACCOUNTS

Over the course of the last decade, the number of births has averaged about 373,500 per year. It is necessary to note that counts were higher for 1988 and more importantly, for 1989. The total number of births in 1989 registered 392,200, a figure unsurpassed since 1965. After four consecutive years of decline, this increase sparks our interest because the female age structure has changed very little, and even in a way that could be considered as unfavourable to an increase. What can be seen in these thousands of unexpected births is not necessarily an increase in fertility, but rather changes that have occurred in the timing of births. Fertility in Canada as elsewhere in the Western world has come later for a good proportion of the population, following the later formation of unions, both legal marriages and common-law partnerships.

The number of deaths continued to increase in the same period. For a population that is not only growing but is also getting older, this observation is not unexpected. Whether any increases in life expectancy can occur fast enough to reduce the death rate from one year to the next seems doubtful. But the ratio of deaths to births is still quite low (48% for the 1980-89 period), in spite of the low birth rate. This indicates that the population is relatively young in comparison with older countries such as France, where the ratio approaches 68%. It is nevertheless increasing: 29% in 1960, 42% in 1970, 46% in 1980, and 50% in 1989 (Table 1).

The more rapid growth in the number of births over the number of deaths in the past few years has gently augmented natural growth which had dwindled after the baby-boom. But without an important increase in the birth rate, the natural growth rate (which now stands at approximately 7 per 1,000) will decline under the effect of growth in the number of deaths and of population increase, boosted by the arrival of new immigrants.

Immigration is now recovering after the "slump" of the 1982-1983 recession. Canada accepted 162,900 immigrants over the course of 1988, and then 190,900 over the course of 1989. These levels, as it will be discussed later, are not likely to drop in the near future. Since emigration, on the other hand, is on the decline, net migration is rising. It went from 124,700 persons in 1988 to 143,000 in 1989. It is necessary to return to the exceptional year of 1974 to find such a large net migration gain. Never in the recent past has migration played such a large part in population growth. It amounted to 72% of natural growth in 1989, and if it reaches the equivalent level (100%), which is quite possible in the short-term, then the country's growth will be as much driven by migration as by natural growth. Net migration and natural growth together yield a population estimate of 26,440,300 persons for Canada as of January 1, 1990 (Table 1).

Table 1. Population Movement, Canada, 1960-1990 (Figures in thousands and rates in percents)

Year	Population as of January 1 (1)	Annual Increase		Natural Increase		Net Migration ¹ (4)	Births (5)	Deaths (6)	Immi- grants ² (7)	Emi- grants ³ (8)	Residual ⁴ (9)
		Number (2)	Rate	Number (3)	Rate						
1960	17,710.0	382.0	2.1	338.9	1.9	43.1	478.6	139.7	104.1	75.6	-14.6
1961	18,092.0	350.0	1.9	334.7	1.8	15.3	475.7	141.0	71.7	72.3	-15.9
1962	18,442.0	345.0	1.9	326.0	1.8	19.0	469.7	143.7	74.6	76.7	-21.1
1963	18,787.0	355.0	1.9	318.4	1.7	36.6	465.8	147.4	93.2	83.6	-27.0
1964	19,142.0	359.0	1.9	307.0	1.6	52.0	452.9	145.9	112.6	92.4	-31.8
1965	19,501.0	356.0	1.8	269.7	1.4	86.3	387.7	148.9	146.8	105.3	-44.8
1966	19,857.0	371.0	1.9	237.8	1.2	133.2	370.9	149.9	194.7	91.5	-30.0
1967	20,228.0	370.0	1.7	220.6	1.1	132.4	370.9	150.3	222.9	108.5	-18.0
1968	20,581.0	307.0	1.5	211.1	1.0	95.9	364.3	153.2	184.0	100.0	-11.9
1969	20,888.0	294.0	1.4	215.2	1.0	78.9	369.7	154.5	161.5	90.1	-7.4
1970	21,182.0	283.0	1.3	216.0	1.0	67.0	372.0	156.0	147.7	81.0	-0.3
1971	21,465.0	244.6	1.1	204.9	1.0	39.7	362.2	157.3	121.9	70.1	12.1
1972	21,709.6	232.8	1.1	184.9	0.9	47.9	347.3	162.4	122.0	63.2	10.9
1973	21,942.4	292.9	1.3	180.3	0.8	112.5	344.3	164.0	184.2	78.5	-6.9
1974	22,235.3	333.4	1.5	183.9	0.8	49.5	350.7	166.8	187.9	78.1	-9.1
1975	22,568.7	315.2	1.4	192.9	0.9	122.3	359.3	166.4	149.4	70.7	-5.1
1976	22,883.9	274.5	1.2	192.8	0.8	81.7	360.0	167.2	114.9	64.4	3.3
1977	23,158.4	259.0	1.1	193.9	0.8	65.1	361.4	167.5	86.3	61.4	-11.6
1978	23,417.4	227.1	1.0	190.7	0.8	36.4	358.9	168.2	112.1	63.5	-13.6
1979	23,644.5	267.4	1.1	197.9	0.8	69.5	366.1	168.2	143.1	54.7	-12.1
1980	23,911.9	309.4	1.3	199.2	0.8	110.2	370.7	171.5	128.6	45.2	-12.3
1981	24,221.3	262.1	1.1	200.4	0.8	61.7	371.4	171.0	121.1	43.7	23.2
1982	24,483.4	222.3	0.9	198.7	0.8	23.6	373.1	174.4	89.2	49.4	48.1
1983	24,705.7	190.1	0.8	198.7	0.8	-8.6	373.7	175.0	88.2	50.1	47.7
1984	24,895.8	194.6	0.8	191.0	0.8	-6.7	377.0	175.7	88.2	46.8	48.1
1985	25,090.4	183.6	0.7	194.4	0.8	-10.8	375.7	181.3	84.3	46.9	48.2
1986	25,274.0	218.9	0.9	188.7	0.7	30.2	372.9	184.2	99.2	49.0	20.0
1987(PD)	25,492.9	292.9	1.1	184.7	0.7	109.5	369.7	185.0	152.1	43.9	0.0
1988(PD)	25,785.8	311.5	1.2	186.8	0.7	124.7	376.8	190.0	161.9	37.2	0.0
1989(PP)	26,097.3	311.5	1.2	186.8	0.7	124.7	376.8	190.0	161.9	37.2	0.0
1990(PP)	26,440.3	311.5	1.2	186.8	0.8	124.7	376.8	190.0	161.9	37.2	0.0

Notes: ¹ Difference between column 2 and column 3.

² Based on Employment and Immigration data.

³ Estimates based on family allowance and income tax files.

⁴ The result of (3) + (7) - (8) - (2).

(PD) Definitive postcensal data.

(PP) Preliminary postcensal data.

(PR) Revised postcensal data.

The calculations are based on unrounded data.

Source: Statistics Canada, Demography Division.

Population Change in the Provinces

Although the rate of population growth for Canada was 13 per 1,000 in 1989, not all parts of the country shared uniformly in this increase. Population decline in Saskatchewan was the most striking feature. This amounted to 6,000 persons for the second year in a row. Net migration has dropped steadily in that province from -0.1 per 1,000 in 1984 to -14.8 in 1989. Natural growth before 1987 had always been sufficient to counteract depopulation, but over the course of the past two years, out-migration has been too high. This is not the first time Saskatchewan has faced population loss, but before 1988 it benefitted from 14 years of growth, however slight (Table 2).

British Columbia had the highest growth rate by far (26.2 per 1,000) of all the provinces in 1989, a figure in keeping with its tradition. Only after the recession did growth in B.C. drop, to reach its lowest point at 7 per 1,000. But more than any other province, Alberta felt the negative effects of the recession, so its continuing growth recovery is remarkable. With the return to a positive migration balance in 1989, its growth rate (16.6 per 1,000) was higher than both the national average and the rate for Ontario. In Quebec, net migration increased for the fourth consecutive year. A positive migratory balance of 22,400 persons resulted in an overall growth rate of 9.7 per 1,000, again just over half that of Ontario's, but the highest in the last twenty years. Finally, the Maritime provinces experienced only a small amount of growth, at a rate of about 7 per 1,000.

NUPTIALITY

Marriages

The number of marriages increased slightly in 1988 (3.1%) over the previous year. This increase, however, was mainly in first marriages rather than in marriages where at least one member of the couple had been married before (Table 3).

First Marriages

The total first marriage rate is in fact an indicator and not a measure of first-order nuptiality. It resembles the total fertility rate in that it does not correspond to any particular cohort, but it cannot be obtained through addition of the age-specific rates as in the case of cohort analysis¹. Another cross-sectional measure can be obtained through multiplication of the probabilities of remaining single between two successive birthdays, or more exactly, this difference from one. The formula, in which qx is the probability of marrying between two successive birthdays is:

¹ In cohort analysis, the results give the number of events by head.

Table 2. Rates¹ and Summary Demographic Indicators, Canada, Provinces and Territories, 1981-1989

	Year	New-foundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
Birth Rate (per 1,000)	1981	17.9	15.5	14.2	15.1	14.8	14.2
	1982	16.2	15.7	14.5	15.0	14.1	14.3
	1983	15.6	15.4	14.4	15.0	13.6	14.4
	1984	15.0	15.6	14.3	14.6	13.5	14.7
	1985	14.9	15.9	14.3	14.3	13.3	14.7
	1986	14.3	15.2	14.1	13.8	12.9	14.7
	1987	13.7	15.4	13.8	13.5	12.7	14.5
	1988	13.2	15.4	13.8	13.5	13.0	14.6
	1989	13.8	15.8	14.1	13.6	13.0	14.3
Total Fertility Rate (number of children per woman)	1981	-	1.9	1.6	1.7	1.6	1.6
	1982	-	1.9	1.7	1.7	1.5	1.7
	1983	-	1.8	1.7	1.7	1.5	1.7
	1984	-	1.9	1.6	1.7	1.5	1.7
	1985	-	1.9	1.6	1.6	1.5	1.7
	1986	-	1.9	1.6	1.6	1.4	1.7
	1987	-	1.9	1.6	1.6	1.4	1.7
	1988	-	1.9	1.6	1.6	1.4	1.7
	1989	-	1.9	1.6	1.6	1.4	1.7
Total First Marriage Rate ² (per 1,000)	1981 H	675.6	718.8	706.7	689.1	570.5	734.2
	F	648.4	689.6	685.2	667.6	578.0	715.9
	1982 H	682.5	722.5	674.6	652.4	523.4	731.2
	F	646.4	665.8	658.3	645.1	535.0	723.7
	1983 H	661.7	795.4	655.0	672.5	492.1	705.7
	F	624.6	746.2	641.2	664.7	504.7	701.2
	1984 H	607.4	805.4	656.8	659.3	494.7	700.3
	F	657.1	783.6	677.3	673.4	520.6	709.8
	1985 H	554.6	722.5	651.0	658.7	487.8	695.0
	F	532.1	731.2	661.9	668.9	515.4	708.0
	1986 H	614.9	739.8	630.3	638.3	461.9	681.4
	F	600.1	764.6	649.9	653.2	460.4	698.0
	1987 H	622.7	691.4	651.1	631.8	449.2	688.0
	F	596.1	700.8	672.4	646.1	456.7	717.9
	1988 H	600.1	700.4	600.7	600.3	400.7	600.8
	F	600.3	700.1	600.5	600.8	400.9	600.1
	1989 H	600.1	700.4	600.7	600.3	400.7	600.8
	F	600.3	700.1	600.5	600.8	400.9	600.1
Rate of Natural Increase (per 1,000)	1981	12.2	7.4	6.0	7.7	8.2	6.9
	1982	10.2	7.7	6.3	7.6	7.3	7.0
	1983	9.5	6.9	6.2	7.6	6.8	7.1
	1984	8.8	6.7	6.3	7.2	6.7	7.5
	1985	8.7	7.1	5.9	6.9	6.2	7.3
	1986	8.0	6.4	5.8	6.1	5.8	7.2
	1987	7.3	6.6	5.7	5.9	5.5	7.2
	1988	6.9	6.7	5.4	5.8	5.8	7.1
	1989	6.9	6.7	5.4	5.8	5.8	7.1
Total Growth Rate (per 1,000)	1981	-2.1	0.8	2.5	-0.6	5.8	7.4
	1982	6.9	5.7	6.6	7.5	2.3	11.2
	1983	3.5	11.3	8.6	7.5	2.4	11.2
	1984	-1.4	9.6	8.0	5.2	3.4	12.3
	1985	-4.2	4.8	3.8	1.4	3.9	11.4
	1986	-2.1	2.4	4.7	0.4	6.2	14.1
	1987	-1.4	11.8	4.6	2.1	7.6	18.0
	1988	4.1	11.7	4.4	3.8	8.0	16.1
	1989	4.1	11.7	4.4	3.8	8.0	16.1

See notes at the end of this table.

Table 2. Rates¹ and Summary Demographic Indicators, Canada, Provinces and Territories, 1981-1989 - Continued

	Year	Mani- toba	Saskat- chewan	Alberta	British Columbia	Yukon	Northwest Territories	Canada
Birth Rate (per 1,000)	1981	15.7	17.8	19.0	15.1	23.2	28.4	15.2
	1982	15.6	18.1	19.5	15.3	22.5	28.6	15.2
	1983	15.9	18.0	19.5	15.2	23.5	30.3	15.1
	1984	15.8	18.0	18.9	15.4	22.4	28.6	15.1
	1985	16.1	18.0	18.7	15.0	19.8	27.8	14.9
	1986	15.9	17.3	18.5	14.5	20.3	29.1	14.7
	1987	15.7	16.8	17.7	14.3	19.6	29.5	14.4
	1988	15.7	16.6	17.6	14.3	20.8	29.8	14.5
	1989	15.4	16.5	17.9	14.0	19.7	29.7	15.0
	1990	15.2	16.3	17.7	13.8	19.5	29.5	14.8
Total Fertility Rate (number of children per woman)	1981	1.9	2.1	1.9	1.7	2.1	3.0	1.7
	1982	1.8	2.2	1.8	1.7	2.0	3.0	1.7
	1983	1.9	2.1	1.9	1.7	2.2	3.2	1.7
	1984	1.9	2.1	1.9	1.8	2.2	3.0	1.7
	1985	1.9	2.1	1.9	1.7	1.9	2.8	1.7
	1986	1.9	2.1	1.9	1.7	2.0	3.0	1.7
	1987	1.9	2.0	1.9	1.7	2.0	3.1	1.7
	1988	1.9	2.0	1.9	1.7	2.0	3.1	1.7
Total First Marriage Rate ² (per 1,000)	1981 H	745.8	727.3	676.4	734.6	753.3	479.1	679.2
	F	728.3	708.3	716.8	736.8	739.9	500.3	679.2
	1982 H	744.8	727.3	659.1	694.0	723.2	467.6	656.8
	F	728.3	719.5	714.4	708.4	688.4	477.6	663.2
	1983 H	718.3	701.9	621.8	678.1	696.4	488.3	632.4
	F	716.5	699.9	672.4	695.0	800.0	503.0	640.8
	1984 H	715.5	656.4	609.6	667.3	674.8	409.9	626.3
	F	723.4	671.7	663.5	695.0	658.5	468.0	647.7
	1985 H	689.7	634.3	605.3	638.0	588.3	347.5	615.4
	F	700.9	658.8	656.4	665.2	588.3	394.5	638.1
	1986 H	661.7	621.2	604.2	635.7	525.4	384.5	608.1
	F	686.7	653.7	642.8	669.8	603.9	423.6	619.9
	1987 H	659.1	624.1	603.1	662.2	492.6	342.6	605.7
	F	686.3	657.1	640.4	641.4	513.2	376.6	629.1
	1988 H	650.8	611.1	600.0	638.8	552.7	346.2	628.0
	F	688.8	646.1	630.8	676.1	600.5	441.4	650.1
	1989 H	640.8	600.0	588.8	628.8	540.7	340.7	616.8
	F	678.8	636.1	620.8	666.1	590.5	437.4	648.1
	1990 H	630.8	590.0	578.8	618.8	530.7	330.7	606.8
	F	668.8	631.1	610.8	656.1	580.5	427.4	644.1
Rate of Natural Increase (per 1,000)	1981	7.2	10.0	13.3	7.9	17.1	24.1	8.2
	1982	7.4	9.7	13.9	7.9	17.5	23.8	8.1
	1983	7.7	10.3	14.1	8.2	18.6	25.4	8.0
	1984	7.9	10.3	13.4	8.2	17.8	23.9	8.1
	1985	7.8	10.1	13.0	7.6	14.5	23.7	7.7
	1986	7.6	9.4	12.8	7.2	15.5	24.5	7.4
	1987	7.6	9.1	12.1	6.8	15.1	25.6	7.2
	1988	7.3	8.6	11.8	6.8	15.3	25.6	7.2
	1989	7.0	8.3	11.5	6.5	15.2	25.5	7.0
	1990	6.8	8.0	11.2	6.2	15.0	25.4	6.8
Total Growth Rate (per 1,000)	1981	5.8	10.1	38.0	20.5	38.9	34.9	10.8
	1982	11.0	10.7	18.5	10.3	-25.8	40.0	9.0
	1983	9.7	11.5	2.7	11.0	-4.4	26.4	7.7
	1984	9.2	10.2	0.5	10.3	21.6	29.7	7.8
	1985	7.0	3.8	8.5	7.1	-4.3	15.5	7.3
	1986	6.2	2.7	4.8	8.7	29.4	-9.6	8.6
	1987	5.8	0.3	4.7	17.8	28.5	5.8	11.5
	1988	1.8	-6.0	13.4	22.8	32.4	15.4	12.1
	1989	1.4	-6.3	13.1	22.5	32.1	15.3	11.8
	1990	1.1	-6.6	12.8	22.2	31.8	15.2	11.5

See notes at the end of this table.

Table 2. Rates¹ and Summary Demographic Indicators, Canada, Provinces and Territories, 1981-1989 – Continued

	Year	New-foundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
Net Migration Rate (per 1,000)	1981	-14.3	-6.6	-3.6	-8.3	-2.4	0.5
	1982	-3.3	-2.0	0.3	-0.1	-5.0	4.2
	1983	-6.0	4.4	2.4	-0.1	-4.4	4.1
	1984	-10.2	2.9	1.7	-2.0	-3.3	4.8
	1985	-12.9	-2.3	-2.1	-5.5	-2.3	4.1
	1986	-10.1	-4.0	-1.1	-5.7	0.4	6.9
	1987	-8.7	5.2	-1.1	-3.8	2.1	10.8
	1988	-2.8	5.0	-1.0	-2.0	2.2	9.0
	1989						
Population aged 65 + as a Percentage of the Total Population on June 1	1981	7.7	12.2	10.9	10.1	8.8	10.1
	1982	7.9	12.4	11.1	10.4	9.1	10.2
	1983	8.1	12.4	11.3	10.5	9.2	10.3
	1984	8.3	12.5	11.4	10.6	9.5	10.4
	1985	8.6	12.6	11.7	10.9	9.7	10.7
	1986	8.8	12.7	11.9	11.1	10.0	10.9
	1987 (PD)	9.0	12.7	12.1	11.4	10.2	11.1
	1988 (PD)	9.2	12.8	12.2	11.6	10.5	11.3
Life Expectancy at Birth	1981 H	71.95	72.83	70.96	71.08	71.08	72.28
	F	78.65	80.49	78.37	79.19	78.71	79.03
	1986 H	72.72	72.57	72.25	72.47	71.98	73.49
	F	79.36	80.35	79.20	80.01	79.39	79.73
	1988 H (P)	73.32	73.28	72.59	72.92	72.47	73.85
	F (P)	79.38	80.98	79.70	80.49	79.99	80.17
Infant Mortality Rate (per 1,000)	1981	9.7	13.2	11.5	10.9	8.5	8.8
	1982	10.8	7.8	8.6	10.5	8.8	8.3
	1983	10.6	8.4	9.4	10.6	7.7	8.0
	1984	9.2	8.2	7.8	7.8	7.3	7.6
	1985	10.8	4.0	7.9	9.6	7.2	7.3
	1986	8.0	6.7	8.4	8.3	7.1	7.2
	1987	7.6	6.6	7.4	7.0	7.1	6.6
	1988						
Rate of Pregnancies Terminated ³ (per 1,000 woman 15-44 years of age)	1981	3.5	1.0	8.5	2.7	5.6	14.7
	1982	3.4	0.9	8.4	1.5	6.0	14.9
	1983	3.4	0.5	8.2	1.6	5.8	13.4
	1984	2.7	0.4	8.2	1.6	5.9	13.1
	1985	2.9	0.4	8.0	1.8	6.9	12.5
	1986	2.5	0.4	8.0	2.0	7.5	12.1
	1987	3.3	1.2	8.0	2.1	7.3	12.4
Total Divorce Rate (per 10,000 marriages)	1981	-	-	-	-	-	-
	1982	-	-	-	-	-	-
	1983	-	-	-	-	-	-
	1984	-	-	-	-	-	-
	1985	-	-	-	-	-	-
	1986	-	-	-	-	-	-
	1987	-	-	-	-	-	-
	1988	-	-	-	-	-	-

See notes at the end of this table.

Table 2. Rates¹ and Summary Demographic Indicators, Canada, Provinces and Territories, 1981-1989 - Concluded

	Year	Mani- toba	Saskat- chewan	Alberta	British Columbia	Yukon	Northwest Territories	Canada
Net Migration Rate (per 1,000)	1981	-1.4	0.1	24.7	12.7	21.8	10.8	2.5
	1982	3.6	1.0	4.6	2.4	-43.2	16.2	1.0
	1983	1.9	1.2	-11.4	2.8	-23.0	1.0	-0.4
	1984	1.3	-0.1	-12.9	2.1	3.8	5.8	-0.3
	1985	-0.9	-6.3	-4.5	-0.5	-10.3	-8.2	-0.4
	1986	-1.4	-6.7	-7.9	1.6	13.8	-34.2	1.2
	1987	-1.8	-8.8	-7.4	11.0	13.4	-19.8	4.3
	1988	-5.5	-14.6	1.6	16.0	17.1	-10.2	4.9
	1989	-4.9	-14.8	4.5	19.4	-4.1	-0.8	5.3
Population aged 65 + as a Percentage of the Total Population on June 1	1981	11.9	12.0	7.3	10.9	3.0	2.8	9.7
	1982	12.0	12.2	7.3	11.0	3.3	2.7	9.9
	1983	12.1	12.3	7.4	11.2	3.5	2.7	10.0
	1984	12.2	12.4	7.6	11.4	3.5	2.8	10.2
	1985	12.4	12.5	7.9	11.7	3.4	2.7	10.4
	1986	12.5	12.7	8.1	12.1	3.8	2.9	10.6
	1987 (PD)	12.7	12.9	8.4	12.5	3.7	2.9	10.9
	1988 (PD)	12.9	13.1	8.6	12.7	3.6	2.9	11.1
Life Expectancy at Birth	1981 H	72.24	72.43	71.96	72.62	-	-	71.88
	F	78.77	79.61	79.06	79.55	-	-	78.98
	1986 H	73.00	73.66	73.55	74.05	-	-	73.04
	F	79.78	80.47	79.98	80.31	-	-	79.73
	1988 H (P)	73.20	73.95	73.97	74.30	-	-	73.44
	F (P)	80.23	80.91	80.53	80.74	-	-	80.22
Infant Mortality Rate (per 1,000)	1981	11.9	11.8	10.6	10.2	14.9	21.5	9.6
	1982	9.1	10.5	9.8	9.9	21.0	16.2	9.1
	1983	10.4	10.1	8.4	8.8	18.5	20.8	8.5
	1984	8.6	9.4	9.6	8.6	13.5	17.3	8.1
	1985	9.9	11.0	8.0	8.1	10.8	16.7	7.9
	1986	9.2	9.0	9.0	8.5	24.8	18.6	7.9
	1987	8.4	9.1	7.5	8.6	10.5	12.5	7.3
	1988	7.3	8.6	7.1	8.1	10.0	10.8	7.2
	1989	7.3	8.6	7.1	8.1	10.0	10.8	7.2
Rate of Pregnancies Terminated ² (per 1,000 woman 15-44 years of age)	1981	6.9	7.7	12.0	19.3	19.2	15.8	11.1
	1982	7.3	7.5	11.2	18.8	18.8	18.6	11.1
	1983	7.0	6.4	10.8	17.2	19.8	17.1	10.2
	1984	9.1	5.4	11.2	16.7	14.7	18.4	10.2
	1985	9.2	5.1	11.0	16.4	14.8	19.7	10.2
	1986	10.2	4.6	10.5	16.5	18.9	19.2	10.2
	1987	10.5	5.4	9.2	16.5	21.3	18.7	10.2
	1988	10.5	5.4	9.2	16.5	21.3	18.7	10.2
Total Divorce Rate (per 10,000 marriages)	1981	-	-	-	-	-	-	3,529
	1982	-	-	-	-	-	-	3,655
	1983	-	-	-	-	-	-	3,522
	1984	-	-	-	-	-	-	3,306
	1985	-	-	-	-	-	-	3,121
	1986	-	-	-	-	-	-	3,799
	1987	-	-	-	-	-	-	4,314
	1988	-	-	-	-	-	-	3,705

¹ Rates are calculated on the basis of average intercensal estimates between January 1 and December 31, 1987.

² Calculated for 15-49 years of age.

³ This rate cannot be compared with the total fertility rate.

Source: Various Statistics Canada publications.

$$1 - \prod_{x=15}^{49} (1 - n_x)$$

The difference between the two indices may be substantial. For example, the total first marriage rate for Canada in 1985 was 615 per 1,000 men and 638 per 1,000 women (Table 4). The index calculated for the probability of marrying before the age of fifty was 840 per 1,000 men and 860 per 1,000 women². The figures for this index may be questionable however, because the number of marriages in any given year is not independent of the number in previous years (Table 4).

The total first marriage rate has some advantages as an indicator. For intercensal estimates it uses a denominator that is, in principle, less suspect

Table 3. Marriages, First Marriages, and Remarriages, Canada, 1967-1988

Year	Number of Marriages	Number of First Marriages		Marriages in which at least one of the spouses had been previously married	
		Males	Females	Number	%
1967	165,879	151,883	151,488	20,417	12.3
1968	171,766	157,309	156,783	21,133	12.3
1969	182,183	162,853	162,690	27,494	15.1
1970	188,428	167,267	167,421	29,975	15.9
1971	191,324	168,944	169,072	31,698	16.6
1972	200,470	176,537	177,155	33,582	16.8
1973	199,064	173,355	174,135	36,047	18.1
1974	198,824	170,678	172,107	39,063	19.6
1975	197,585	167,022	168,817	42,300	21.4
1976	193,343	155,679	157,412	43,098	22.3
1977	187,344	154,906	156,854	44,750	23.9
1978	185,523	151,884	154,016	46,254	24.9
1979	187,811	152,731	154,982	48,309	25.7
1980	191,069	154,138	156,918	50,660	26.5
1981	190,082	151,978	154,506	52,340	27.5
1982	188,360	149,419	152,825	52,773	28.0
1983	184,675	144,960	147,968	54,342	29.4
1984	185,597	144,674	147,907	55,436	29.9
1985	184,096	144,009	146,718	54,632	29.7
1986	175,518	137,665	138,523	52,678	30.0
1987	182,151	138,443	139,312	60,018	32.9
1988	187,728	142,956	143,943	61,665	32.9

Source: Statistics Canada, *Vital Statistics, Marriages and Divorces*, Catalogue 84-205 (Annual).

² See table in Adams, O.B. and D.N. Nagnur, *Marriage, Divorce and Mortality: Analysis of Mortality Tables, Canada and Regions*, Statistics Canada, Ottawa, Catalogue 84-536.

Table 4. Total First Marriage Rate (number per 1,000), Canada, Provinces, and Territories, 1985, 1987 and 1988

Province	1985		1987		1988	
	Males ¹	Females ²	Males ¹	Females ²	Males ¹	Females ²
Newfoundland	555	532	623	596	657	634
Prince Edward Island	722	731	691	701	741	747
Nova Scotia	651	662	651	672	671	710
New Brunswick	659	669	632	646	687	711
Quebec	488	515	449	457	460	488
Ontario	695	708	688	718	705	761
Manitoba	690	701	659	686	655	700
Saskatchewan	634	659	624	657	632	677
Alberta	605	656	603	640	640	696
British Columbia	638	665	662	692	705	756
Yukon	588	588	493	513	574	695
Northwest Territories	348	394	343	377	349	343
Canada	615	638	606	629	627	672
Canada Excluding Quebec	661	682	661	689	683	735

¹ Ages 17-49 inclusive.

² Ages 15-49 inclusive.

Source: Statistics Canada, *Vital Statistics, Vol. II, Marriages and Divorces*, Catalogue 84-205.

than the one used for estimates by marital status in the table quotients. And it permits, with little effort, valid geographical comparisons, which are often the aim of research pursuits.

The 1988 first marriage rates were higher than the 1987 rates for almost everywhere in Canada. Examination of the age-specific rates reveals a continuing decline in the rate of first marriage for ages up to 24 for men and up to 21 for women. After these junctures, there appears to be a marked increase in first marriages for ages up to 35. This trend may well represent the beginning of a recovery in nuptiality, but only time will tell. (Tables 5 and 6).

DIVORCE

The divorce count for 1987 was 90,985 and not 86,985 as published in the 1988 Report on the Demographic Situation in Canada. The earlier figure did not account for some 4,000 decrees granted in Ontario, for which there was no social and demographic information on the divorcing couples. Table 7 has been adjusted to include these decrees. This correction in no way changes the 1988 analysis, which showed a stunning increase in the number of 1987 decrees

Table 5. First Marriage Rates (per 1,000) for Male Cohorts, Canada, 1943-1971

Age	Year of Birth																			
	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954	1953	1952
	1948	1947	1946	1945	1944	1943	Year of 17th Birthday													
1988	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970	1969	1968
Males																				
17																4.7	4.3	4.3	4.0	3.8
18																		18.9	17.9	17.2
19																			44.2	41.7
20																			77.3	73.6
21																				116.5
22																				125.3
24																				110.2
25																				87.3
26																				67.0
27																				48.7
28																				38.9
29																				31.5
30																				23.7
31																				20.6
32																				16.1
33																				13.3
34																				11.2
35																				10.3
36																				9.0
37																				8.8
38																				7.8
39																				7.4
40																				6.4
41																				5.3
42																				
43																				
44																				
45																				

Source: Statistics Canada, unpublished data.

Table 6. First Marriage Rates (per 1,000) for Female Cohorts, Canada, 1943-1973

Age	Year of Birth																														
	1973	1972	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947	1946	1945	1944	1943
	Year of 15th Birthday																														
	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961	1960	1959	1958
Females																															
15																															
16																															
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Source: Statistics Canada, unpublished data.

but which also concluded that, in 1988, both the number of divorces and the propensity to divorce would realign with the 1983 downward trend. In fact, the number of divorce decrees granted in 1988 was 79,872, a drop of 11,000 from the previous year. Again, 20% of the divorces in 1987 were initiated under the 1968 Divorce Act, whereas in 1988 this figure was only 6%. Likely, there will be practically no more of the 1968 decrees in 1989, and the number of divorces will fall again.

Divorce rates tend to fluctuate from one year to another where populations are sparse, and this explains the erratic patterns in Prince Edward Island and the Territories. Divorce dropped in all other provinces except Quebec, where it rose slightly.

Examination of the 1988 duration-specific divorce rates and the resulting total rate leads to two observations (Table 8). The first is that the total divorce rate (3,705 per 10,000 marriages) dropped significantly, as was expected, to almost the same level as in 1986, and close to the 1983 level (3,522 per 10,000 marriages). This observation reinforces the conclusion of the 1988 report, that the trend toward divorce may have already peaked by the middle of the 1980s and that divorce rates will probably drop before they rise again. That the Palais de Justice in Montreal granted 12,500 divorces in 1988 (among a total of 19,500 for Quebec) but only 8,372 in 1989 confirms this impression. But it is also true that some petitioners may have abandoned divorce suits when the Property Sharing Law (which now provides different rules for partitioning property at the time of divorce) came into force³.

The second observation is that, for marriages that ended after long durations, the rates are much lower. Changes in the law disturb statistical distributions and blur behaviour patterns that evolve slowly from generation to generation and from cohort to cohort. Table 8 reveals that the average duration of marriage at the time of divorce, independent of the strength in the propensity to divorce, has dropped. Marriage cohorts in the 1950s reached their highest rate of divorce after a duration of 20 years. Duration then drops steadily: to 15 years for the cohorts at the beginning of the 1960s; to 12 years for cohorts in the middle of the 1960s and to only 6 years for the cohorts in the 1970s. Apart from changing attitudes toward married life, there are at least three explanations for this phenomenon:

- 1) The introduction of the divorce law in 1968, after which followed a veritable flood of divorces, some only legal recognition of long-standing marriage break-downs.

³ Verbal communication with the Clerk at the Palais de Justice.

Table 7. Divorce Decrees Granted by Province or Territory, 1980-1988

Province	1980	1981	1982	1983	1984	1985	1986	1987	1988	Changes for 1986-1987 %	Changes for 1987-1988 %
Newfoundland	555	569	625	711	590	561	610	1,002	884	64.3	-11.8
Prince Edward Island	163	187	206	215	195	213	191	246	260	28.8	5.7
Nova Scotia	2,314	2,285	2,281	2,340	2,264	2,337	2,550	2,640	2,478	3.5	-6.1
New Brunswick	1,326	1,334	1,663	1,942	1,427	1,360	1,700	1,952	1,665	14.8	-14.7
Quebec	13,899	19,193	18,579	17,365	16,845	15,814	18,399	18,111	19,874	5.0	-2.6
Ontario	22,442	21,680	23,644	23,073	21,636	20,854	28,653	38,223	29,873	19.5	-21.8
Manitoba	2,282	2,399	2,392	2,642	2,611	2,314	2,917	3,771	2,998	29.3	-20.5
Saskatchewan	1,836	1,932	1,815	2,000	1,988	1,927	2,395	2,751	2,463	14.9	-10.5
Alberta	7,580	8,418	8,882	8,758	8,454	8,102	9,386	9,170	8,644	-2.3	-5.7
British Columbia	9,464	9,533	10,165	9,348	8,988	8,330	11,176	11,697	10,591	4.7	-9.5
Yukon	82	75	117	88	100	96	89	113	81	27.0	-28.3
Northwest Territories	76	66	67	85	74	72	94	105	110	11.7	4.8
Canada	62,019	67,671	70,436	68,567	65,172	61,980	78,160	90,985	79,872	11.3	11.2

Source: Statistics Canada, *Vital Statistics, Vol. II, Marriages and Divorces*, Catalogue No. 84-205.

Table 8. Duration-Specific Divorce Rate (per 10,000), Canada, Marriage Cohorts 1943-44 to 1987-88

Year	Number of marriages per calendar year	Marriage cohort	Cohort marriages	Duration of marriage																									Year of observation	T.D.I. ¹				
				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			25			
1944	104,656	1943-44	109,241																											44	1969	1,367		
1945	111,376	1944-45	108,016																								51	50			1970	1,861		
1946	137,398	1945-46	124,387																								52	56	48		1971	1,881		
1947	130,400	1946-47	133,899																								48	55	49	46	1972	2,004		
1948	126,118	1947-48	128,259																								47	56	50	54	1973	2,231		
1949	124,087	1948-49	125,102																								50	58	56	52	58	1974	2,670	
1950	125,083	1949-50	124,585																								51	60	55	58	64	1975	2,932	
1951	128,408	1950-51	126,745																								51	64	61	59	60	71	1976	3,072
1952	128,474	1951-52	128,441																								53	65	63	62	74	69	1977	3,063
1953	131,034	1952-53	129,754																								54	69	70	64	67	75	1978	3,108
1954	128,629	1953-54	129,381																								50	74	64	71	86	82	1979	3,180
1955	128,029	1954-55	128,329																								57	73	65	68	85	83	1980	3,277
1956	132,713	1955-56	130,371																								59	83	71	73	77	87	1981	3,529
1957	133,186	1956-57	132,949																								67	82	76	75	78	85	1982	3,655
1958	131,525	1957-58	132,355																								61	79	81	83	91	92	1983	3,522
1959	132,474	1958-59	131,999																								68	91	82	80	86	96	1984	3,306
1960	130,338	1959-60	131,406																								70	93	95	91	97	111	1985	3,121
1961	128,475	1960-61	129,406																								73	97	95	97	119	116	1986	3,799
1962	129,381	1961-62	128,928																								71	105	99	106	121	133	1987	4,314
1963	131,111	1962-63	130,246																								71	114	112	114	131	133		
1964	138,135	1963-64	134,623																								68	106	109	113	124	126		
1965	145,519	1964-65	141,827																								61	98	112	121	134	124		

Year	Number of marriages per calendar year	Marriage cohort	Cohort marriages	Duration of marriage																										Year of observation	T.D.I. ¹
				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25		
1966	155,596	1965-66	150,557																												
1967	165,879	1966-67	160,737																												
1968	171,766	1967-68	168,823																												
1969	182,183	1968-69	176,974	3	22	53	83	122	158	182	184	171	165	160	152	147	144	132	111	103	118	123									
1970	188,428	1969-70	185,305	3	25	55	92	151	177	192	192	176	174	163	162	157	139	128	112	118	130										
1971	191,324	1970-71	189,876	4	28	61	106	161	186	189	191	184	180	172	166	150	130	116	125	133											
1972	200,490	1971-72	195,907	4	33	74	117	174	193	196	197	191	187	185	168	144	125	141	141												
1973	199,064	1972-73	199,777	5	36	83	129	181	203	212	211	205	204	180	155	135	149	155													
1974	198,824	1973-74	198,944	5	44	94	136	184	213	226	228	218	189	168	146	154	163														
1975	197,585	1974-75	198,205	6	52	104	147	199	224	243	232	214	185	162	167	177															
1976	193,343	1975-76	195,464	8	59	111	161	218	249	246	226	193	167	190	184																
1977	187,344	1976-77	190,343	8	63	116	166	232	250	238	209	180	195	201																	
1978	185,523	1977-78	186,434	7	65	126	175	237	251	220	198	224	224																		
1979	187,811	1978-79	186,667	8	60	135	187	228	225	210	246	245																			
1980	191,069	1979-80	189,440	8	68	137	178	207	212	261	269																				
1981	190,575	1980-81	190,822	9	74	133	154	190	262	285	232																				
1982	188,360	1981-82	189,468	10	69	120	147	252	294	243																					
1983	184,675	1982-83	186,518	9	67	110	202	295	248																						
1984	185,597	1983-84	185,136	9	66	145	246																								
1985	184,096	1984-85	184,846	10	70	197	227																								
1986	175,518	1985-86	179,807	10	96	194																									
1987	182,151	1986-87	178,835	18																											
1988	187,728	1987-88	184,940																												

¹ Total divorce index.

Source: ??????Statistique Canada, *Statistique de l'état civil, vol. II, mariages et divorces*, n° 84-205 au catalogue.?????

- 2) The trend toward common-law unions before marriage. These unions lengthen the real time spent living together but reduce the duration of the marriage itself.
- 3) The increase in marriages with at least one divorced partner. These marriages are more likely to fail than those between previously unmarried individuals (Table 3).

FERTILITY

The Completed Fertility Rate

Fertility refers to the behaviour of the society in matters of procreation. It is at the heart of many issues fundamental to economic vitality, such as the growth and aging of the population, and so remains a subject of great interest.

The birth rate is directly related to fertility. The number of births each year results from the number of women of childbearing age and their propensity to bear children. It is this propensity that is measured to gauge the future evolution of the population.

If, during the course of their lives, one thousand women in a cohort bear 2,000 children, then we can say that the generation has replaced itself. But more precision is necessary in practice because the effects of mortality and the sex of children must be taken into account. It is more accurate to say that a generation is replaced when 1,000 girls alive at birth, after they reach their childbearing years and accounting for any of their deaths, give birth to another 1,000 girls. Since the sex ratio (males per females) at birth is known (1.05), mortality rates are known, and the average age of childbearing can be evaluated in a society such as Canada's, the true replacement threshold can be calculated. Calculations show that the replacement of a generation is only ensured when 1,000 women bring approximately 2,100 children into the world, or 2.1 children per woman. Age-specific rates are calculated by comparing the number of births to mothers of a certain age to the total number of women of that age. The sum of these 35 rates (from 15 to 49) results in the desired value, called completed fertility (Table 9).

The Total Fertility Rate

The problem with the completed fertility measure is that it lacks pertinence as a measure of current fertility. It is a measure of the behaviour of cohorts who have already completed their fertile life. Only the fertility of women who have reached the age of 50 in any given year can be measured; that is, for 1989, only those women who were born in 1939 or earlier.

Table 9. Total Fertility Rate and Completed Fertility for Cohorts 1907-1954, Canada

Year of Birth	Completed Fertility	Year	Total Fertility Rate
1907	2,834	1934	2,787
1908	2,823	1935	2,738
1909	2,725	1936	2,680
1910	2,752	1937	2,629
1911	2,701	1938	2,686
1912	2,712	1939	2,638
1913	2,759	1940	2,751
1914	2,867	1941	2,816
1915	2,906	1942	2,946
1916	2,880	1943	3,023
1917	2,875	1944	2,994
1918	2,925	1945	3,000
1919	2,890	1946	3,355
1920	3,229	1947	3,575
1921	3,266	1948	3,421
1922	3,286	1949	3,444
1923	3,222	1950	3,438
1924	3,260	1951	3,487
1925	3,287	1952	3,631
1926	3,265	1953	3,712
1927	3,244	1954	3,822
1928	3,294	1955	3,823
1929	3,266	1956	3,853
1930	3,394	1957	3,923
1931	3,378	1958	3,881
1932	3,362	1959	3,941
1933	3,258	1960	3,904
1934	3,152	1961	3,852
1935	3,113	1962	3,769
1936	3,056	1963	3,683
1937	2,923	1964	3,515
1938	2,889	1965	3,157
1939	2,810	1966	2,821
1940	2,716	1967	2,601
1941	2,641	1968	2,459
1942	2,517	1969	2,409
1943	2,439	1970	2,336
1944	2,285	1971	2,188
1945	2,110	1972	2,025
1946	2,110	1973	1,939
1947 ¹	2,278	1974	1,887
1948 ¹	2,123	1975	1,871
1949 ¹	2,015	1976	1,820
1950 ¹	1,941	1977	1,801
1951 ¹	1,888	1978	1,751
1952 ¹	1,845	1979	1,757
1953 ¹	1,838	1980	1,738
1954 ¹	1,876	1981	1,699
		1982	1,687
		1983	1,675
		1984	1,684
		1985	1,673
		1986	1,662
		1987	1,647
		1988	1,680

¹ Rates are estimated for the remainder of the fertile period using age and taking into account the falling birth rate.

Source: Statistics Canada, *Vital Statistics, Births and Deaths*, Catalogue No. 84-204 annual. Unpublished Data on Cohort Fertility, Vital Statistics Section, Statistics Canada.

For this reason, an index known as the total fertility rate is often used instead. As its name implies, this is the total rate of procreative behaviour in a given year calculated by adding, as in the case of completed fertility, 35 rates. In this case, the rates are not those for a particular cohort, but those for 35 segments of those cohorts, each of which is at a different age in the year under consideration. Together, they represent the behaviour of a fictitious cohort. It can be seen very quickly that the value of the total fertility rate will never be equal to that of completed fertility except in the unlikely event that all cohorts have the same fertility rate at each age. In this unique case, the sum of the rates of any cohort would be equal to the sum of the 35 rates of the segments of cohorts for a given year. But rarely do successive cohorts resemble one another, either in the number of children they bring into the world, or in the pace at which these children are born. It is therefore difficult to interpret the total fertility rate as a measure of fertility.

To better understand the risk of error, let us assume that the women in the 35 cohorts at 35 different ages decide not to have children in a particular year. The total fertility rate for that year would then be zero, even though the average woman in the cohort may have as many as 2, 3, or 5 children over the course of her fertile life. Alternatively, a specific factor may cause women of all ages to have more children than expected in a particular year. These women would thereby move ahead of the hypothetical schedule each had set to bring the same number of children into the world. The total fertility rate then does not measure the fertility of any one generation. It is always either above or below the completed fertility of the cohorts depending on when fertility expresses itself, whether earlier or later.

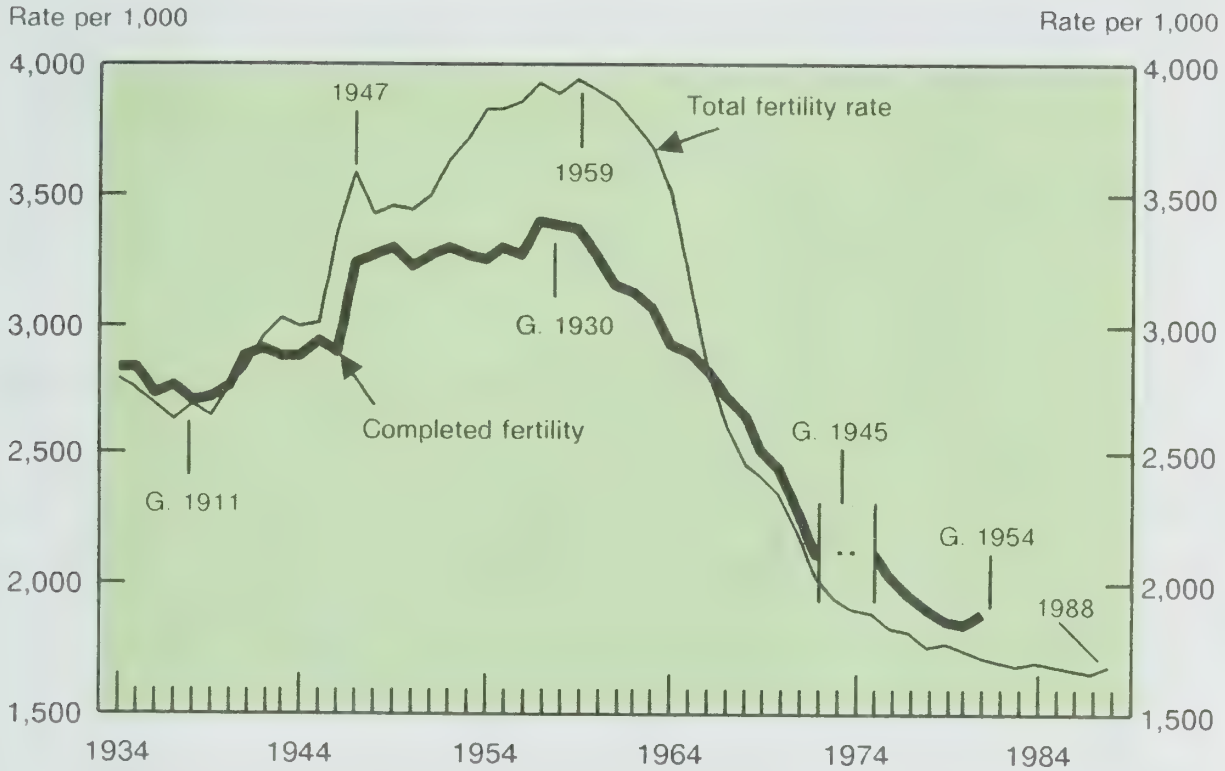
The direction of the two rates is not usually contradictory, but fluctuations are more pronounced in the total rate than in completed fertility. Consequently, there are circumstances when the interpretation of the rates may be particularly delicate. When a population is approaching its replacement threshold, the total fertility rate can be lower than that threshold even if the cohorts show no evidence of failure to replace themselves. An example of how the total fertility rate can give an inaccurate portrayal of fertility will later be shown for the American and Canadian populations.

The Canadian Situation

The youngest Canadian cohorts for whom fertility has unquestionably been achieved are those born around 1938. These cohorts have brought an average of 2.7 children per woman into the world (2,700 children per 1,000 women). The replacement threshold in their case would be closer to 2.2 children rather than to 2.1, because infant mortality has been declining. These cohorts have therefore replaced themselves.

We can also estimate, without risk of serious error, the fertility of more recent cohorts. Fertility rates after 40 years of age are now so low that cohorts

Chart 1
Total Fertility Rate (1934-1988) and Completed Fertility for
Selected Cohorts (1907-1954)



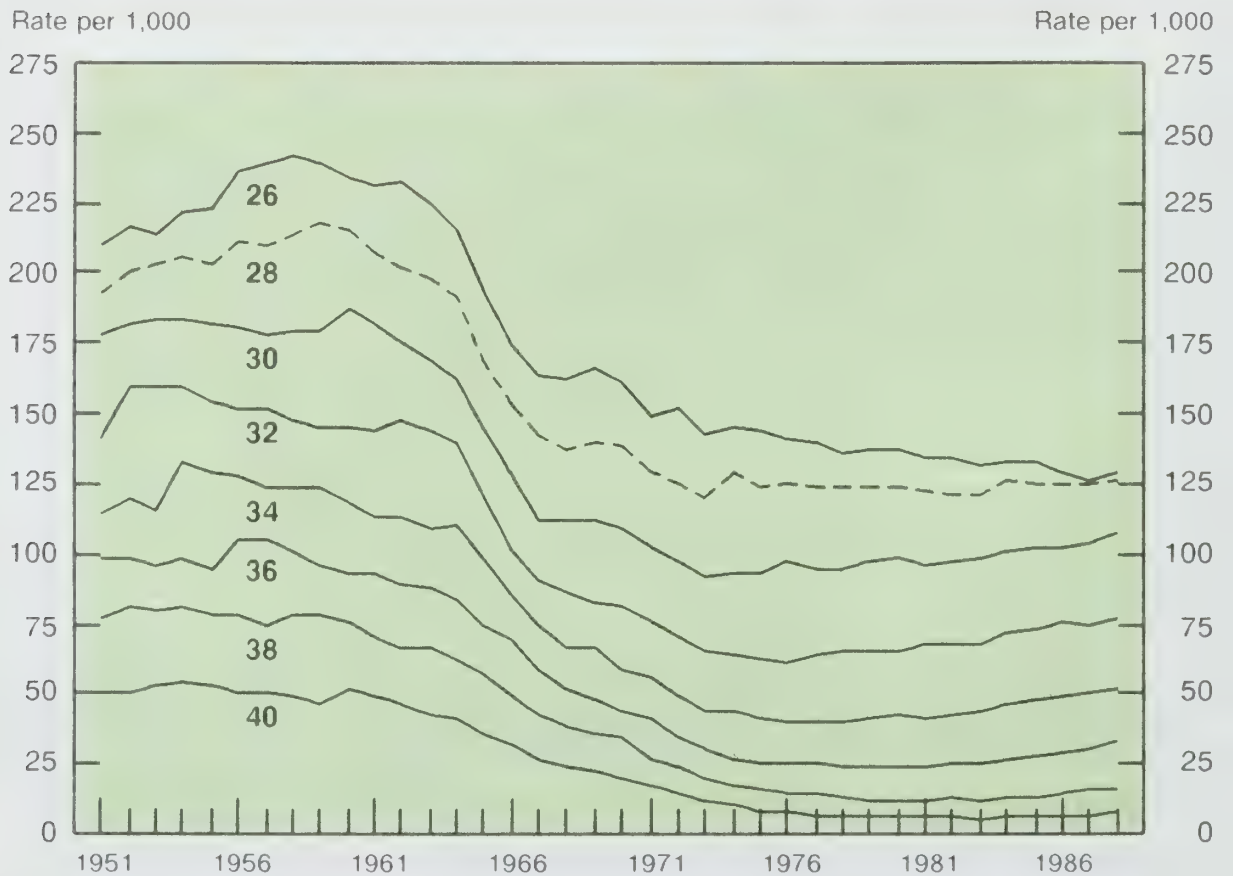
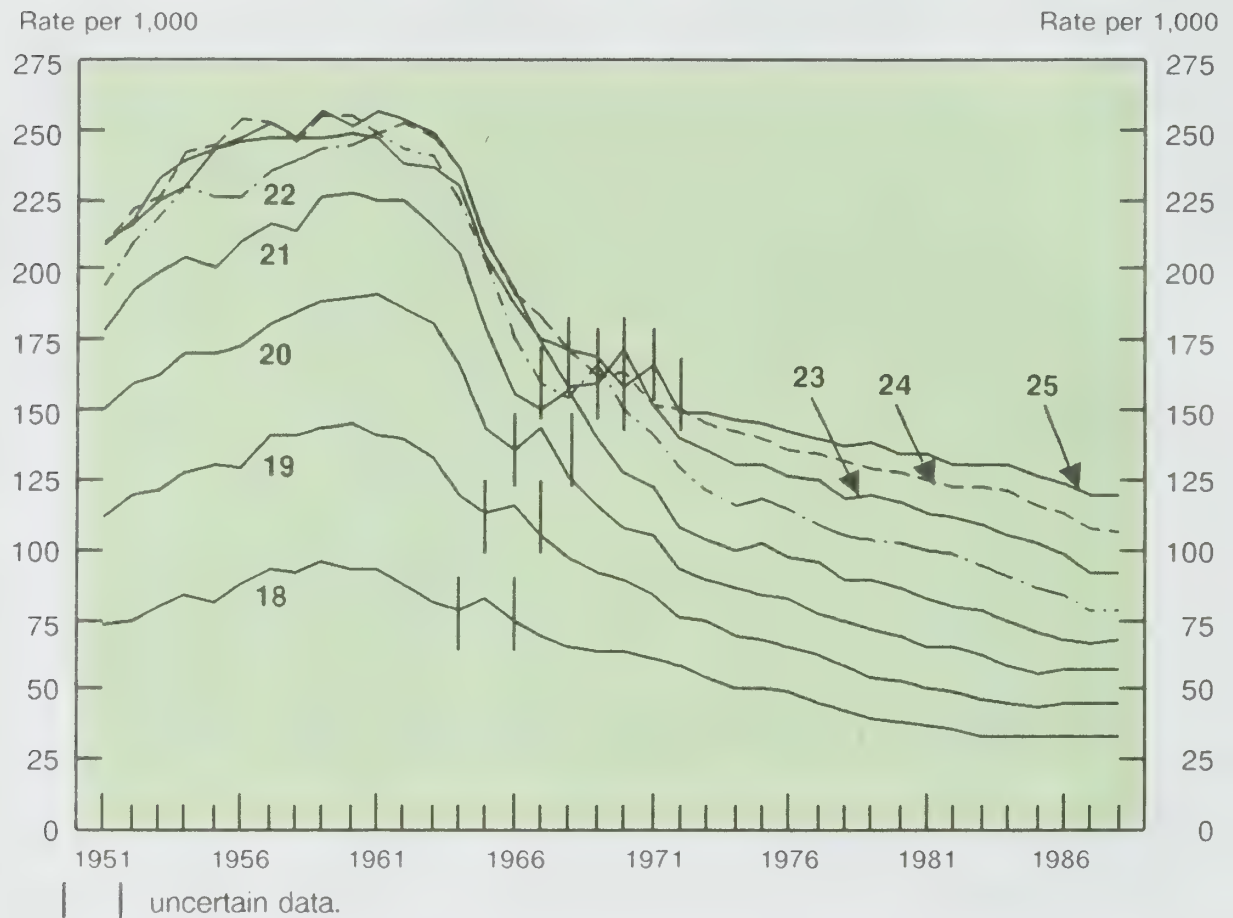
.. uncertain data
Source: Table 9.

born around 1948 have probably already brought, by 1988, all the children into the world that they ever will. The completed fertility estimate for this group is only 2.1 children per woman. Since completed fertility has been declining since the 1930s, when it was 3.3 children per woman, these late 1940s cohorts may be the last to have ensured their own replacement for some time to come (Graph II).

A look at the fertility behaviour of cohorts who were 32 to 40 years of age in 1988 indicates that they will probably not produce more than 1.9 children per woman, which is below the renewal threshold. This calculation even assumes a rise in their fertility rates in the later childbearing years, as current trends suggest.

Forecasting is more difficult for even younger cohorts. For example, the 1961 cohort, which reached 27 years of age in 1988, has until now produced barely 0.9 children per woman. This implies that between now and the time it reaches age forty in another 13 years (given a relatively long fertile life) women in this cohort will have to bear an average of 1.2 children more each so as to reach the critical figure of 2.1.

Chart 2
Fertility Rate by Age of Mother, Canada 1951-1988



Source: Calculated in the Demography Division, Statistics Canada.
Based on data published by the Canadian Centre for Health Information.

A More General Perspective

Just as no replacement seems a certainty for the cohorts 32 to 40 years of age, the possibility that the 1961 cohort will not replace itself either cannot be eliminated. A study of the evolution in age-specific rates sheds some light on this question. It shows that fertility is now in an historical transition from a time when it came relatively early in life to a time when it appears to be coming later. The average woman in the 1939 cohort had already given birth to half her children (2.7 on average) by the time she was 23.5 years old; her counterpart in the 1956 cohort was age 27 before half of her children (1.8 on average) were born.

Fluctuations in the Total Fertility Rate

But because it is concise and almost universally applied, the total fertility rate is useful to analyses of fertility. The Canadian rate has been stable at a value of 1.7 since 1980. Analysis of its composition shows, in agreement with the above remarks, that this stability is due to a swing between fertility at young ages, which dropped year after year until 1987, and fertility in the late twenties and early thirties, which has been rising.

During the baby boom, the total fertility rate surpassed completed fertility to reach a figure of almost 4, but no cohorts ever produced more than 3.4 children per woman. The total fertility rate has underestimated real fertility, however, since 1966. At a value of 1.7 children per woman in 1981, it was below that of the most closely affected average cohort, whose value was 1.9. A general rise in age-specific rates could once again boost the total rate and lead too quickly to the conclusion that the cohorts are replacing themselves.

Fertility and Public Policy

The low fertility rate in Quebec has prompted a revaluation of the family's place in provincial government priorities. A series of clearly pronatalist policies have been implemented over the past few years. Between 1987 and 1990, budgetary measures were enacted to make living conditions more comfortable for families with children. These measures involved income tax breaks, subsidized day care and baby bonuses. For the 1988-89 fiscal year, the Quebec government offered a bonus of \$500 for the birth of first and second children, and a bonus of \$3,000 for third and subsequent children. In effect, this consists of an amount of \$375 paid quarterly over two years. The bonus system was changed for the 1989-90 fiscal year so that for second children, the family receives not only the initial \$500, but an additional \$500 on the child's first birthday. For the third child, families receive the quarterly \$375 over three years rather than just two (for a bonus of \$4,500). In the latest amendment (1990-91) bonuses for the first two children will remain the same, but parents of third and subsequent children will receive quarterly payments of \$375 over four years.

Table 10. Age-Specific Fertility and Total Fertility Rates by Birth Order and Age of the Mother for Quebec and the Rest of Canada, 1981-1988

Birth Order	Year	15-19		20-24		25-29		30-34		35-39		40-44		Total Fertility Rate	
			Rest of Canada		Rest of Canada		Rest of Canada		Rest of Canada		Rest of Canada		Rest of Canada		Rest of Canada
1	1981	13.1	25.6	57.4	56.1	55.4	49.2	16.5	17.3	8.5	8.7	0.5	0.5	732.3	761.8
	1982	13.2	25.8	54.8	56.4	50.8	49.9	15.9	18.4	3.6	4.0	0.5	0.5	693.6	775.2
	1983	12.8	24.2	53.8	55.1	51.6	51.0	16.4	19.9	3.8	4.7	0.5	0.5	694.0	776.5
	1984	12.7	22.0	51.0	51.6	51.7	51.4	16.4	21.6	4.0	4.9	0.5	0.6	681.2	760.0
	1985	12.8	22.4	49.4	50.3	52.0	51.3	17.3	21.5	4.0	4.8	0.5	0.6	679.6	754.1
	1986	13.2	21.8	49.6	69.3	51.7	50.5	18.1	21.3	4.5	5.1	0.5	0.7	687.5	743.3
	1987	13.5	20.9	46.5	46.8	51.3	49.7	18.2	21.5	4.2	5.4	0.5	0.7	671.4	725.0
	1988	13.4	20.6	50.5	45.8	50.6	51.4	19.0	22.5	4.3	6.0	0.5	0.8	734.8	734.8
2	1981	1.7	4.6	25.1	33.2	54.1	48.5	28.1	25.7	6.2	5.9	0.6	0.6	578.8	592.8
	1982	1.6	4.6	23.6	32.6	50.5	46.0	26.1	26.9	5.8	6.3	0.6	0.7	541.8	594.9
	1983	1.6	4.5	22.9	31.9	49.2	48.3	25.5	28.2	5.4	6.8	0.6	0.8	525.6	602.3
	1984	1.6	4.0	22.6	30.2	50.5	48.1	27.2	29.0	5.8	7.4	0.6	0.7	541.5	597.4
	1985	1.7	4.2	21.6	30.4	49.1	49.8	26.8	30.8	5.8	7.8	0.5	0.8	527.9	619.5
	1986	1.7	4.0	19.8	29.2	47.8	49.6	26.0	31.8	5.8	8.3	0.7	0.8	508.9	618.8
	1987	2.1	4.2	20.5	27.7	45.3	48.8	25.5	32.2	5.9	8.8	0.7	1.0	500.0	613.3
	1988	1.8	3.7	20.5	26.3	50.5	46.7	28.1	31.9	6.9	9.3	0.8	1.1	594.6	594.6
3	1981	0.2	0.5	4.6	8.9	17.7	20.3	16.9	16.1	4.6	4.9	0.6	0.7	222.8	256.3
	1982	0.1	0.5	4.5	8.9	16.2	20.5	14.9	16.5	4.6	5.4	0.6	0.6	204.5	261.7
	1983	0.1	0.5	4.1	8.6	15.1	20.3	14.3	16.8	4.1	5.5	0.5	0.6	191.3	261.4
	1984	0.1	0.4	3.9	7.8	14.6	19.5	14.1	17.2	4.4	5.6	0.6	0.7	188.4	255.8
	1985	0.2	0.5	3.8	8.3	14.3	20.3	13.6	17.9	4.3	5.9	0.5	0.7	183.1	267.9
	1986	0.2	0.5	3.6	8.0	13.6	20.1	12.7	18.3	4.4	6.1	0.6	0.8	174.7	268.0
	1987	0.2	0.5	4.3	8.0	14.0	19.8	12.6	18.4	4.0	6.5	0.6	0.8	178.9	269.7
	1988	0.2	0.5	3.7	7.5	13.0	18.9	12.6	18.1	4.2	6.7	0.5	0.8	171.2	262.4

Table 10. Age-Specific Fertility and Total Fertility Rates by Birth Order and Age of the Mother for Quebec and the Rest of Canada, 1981-1988 – Concluded

Birth Order	Year	15-19		20-24		25-29		30-34		35-39		40-44		Total Fertility Rate	
		Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada
4	1981	-	0.1	0.6	1.7	3.0	5.5	4.6	5.8	2.3	2.7	0.4	0.5	54.1	80.7
	1982	-	-	0.6	1.7	3.0	5.5	4.3	6.0	2.2	2.8	0.4	0.5	52.3	82.4
	1983	-	-	0.6	1.6	2.9	5.4	4.0	6.0	2.0	2.8	0.3	0.5	48.8	81.4
	1984	-	-	0.5	1.5	2.7	5.4	3.7	5.9	1.8	2.8	0.3	0.5	45.5	80.2
	1985	-	-	0.5	1.5	2.5	5.5	3.6	6.2	1.9	2.9	0.3	0.6	43.9	83.2
	1986	-	-	0.5	1.6	2.5	5.4	3.4	6.2	1.7	2.9	0.4	0.5	42.7	83.0
	1987	-	-	0.8	1.8	3.1	5.6	4.1	6.2	1.9	3.0	0.4	0.5	51.6	85.7
	1988	-	-	0.6	1.5	2.5	5.1	3.2	5.9	1.7	2.9	0.4	0.5	42.3	79.9
5 +	1981	-	-	0.1	0.4	0.8	1.9	1.6	3.2	1.6	2.6	0.6	0.9	23.0	45.3
	1982	-	-	0.1	0.4	0.8	2.9	1.4	3.1	1.4	2.6	0.5	0.9	20.1	44.9
	1983	-	-	0.1	0.4	0.7	1.9	1.4	3.1	1.2	2.3	0.5	0.8	19.9	42.3
	1984	-	-	0.1	0.3	0.7	1.7	1.4	2.8	1.2	2.2	0.4	0.7	18.8	38.0
	1985	-	-	0.1	0.4	0.7	1.9	1.2	3.0	1.0	2.1	0.3	0.7	16.6	40.9
	1986	-	-	0.1	0.4	0.7	1.9	1.3	3.0	1.1	2.1	0.4	0.7	17.9	40.0
	1987	-	0.3	0.2	0.6	1.2	2.3	1.7	3.3	1.3	2.3	0.4	0.7	24.1	47.3
	1988	-	-	0.1	0.4	0.7	1.8	1.4	3.0	1.2	2.1	0.4	0.7	18.6	39.9
All Orders	1981	15.0	31.8	87.8	100.2	131.1	125.3	67.7	68.1	18.1	19.8	2.7	3.3	1611.0	1736.9
	1982	14.9	30.9	83.6	99.9	121.3	125.7	62.5	70.9	17.6	21.0	2.6	3.2	1513.1	1759.0
	1983	14.5	29.2	81.4	97.5	119.5	127.0	61.6	74.1	16.5	22.1	2.5	3.1	1479.5	1763.9
	1984	14.4	26.4	78.1	91.4	120.2	126.1	62.8	76.4	17.1	22.9	2.5	3.1	1475.3	1731.5
	1985	14.7	27.1	75.3	90.9	118.6	128.9	62.5	79.4	17.0	23.5	2.2	3.4	1451.1	1765.6
	1986	15.1	26.3	73.6	88.6	116.3	127.5	61.6	80.6	17.4	24.4	2.5	3.4	1431.8	1754.0
	1987	15.8	25.9	72.3	84.9	114.8	126.1	62.2	81.5	17.3	26.0	2.6	3.6	1426.1	1741.0
	1988	16.1	24.9	75.1	81.4	119.0	123.8	65.1	81.3	18.5	27.0	2.9	3.9	1488.2	1711.5

Source: Statistics Canada, *Vital Statistics, Births and Deaths*, Catalogue No. 84-204 and Final Population Estimates, Demography Division, Statistics Canada.

How these measures will affect fertility remains to be seen. When there is an increase in the birth rate, the contribution of financial incentives in relation to other factors, such as changing attitudes, is not easy to gauge. In the case of Quebec, it is difficult to establish a relationship between the 1988 birth rate and the pronatalist policies of the same year, whereas the policies of the previous year were too modest to have any lasting effect. There has been, however, an increase of almost 10% in first order fertility for all age groups in Quebec that has not occurred in the rest of Canada. As for higher-order births, especially the closely observed third order, levels are very low and continue to drop, both in Quebec and in the rest of Canada (Table 10). The 1988 results show that even though the national rate remains stable at 1.7, it is rather precariously situated. Two rather uncertain movements – a slight increase in Quebec and a slight decrease in the rest of Canada – are confusing. The *provisional count for 1989 is 91,315 births for Quebec. This would mean a very significant increase of 10% over two years.*

Multiple Births

The probability of multiple pregnancy increases with parity. This fact is well-known and well-documented. But clear proof based on live birth statistics is not easy to provide. This is because multiple pregnancies are more fragile and tend to be miscarried more often than single pregnancies. Moreover, there is no precise parity (for example the fourth or the fifth) at which one can systematically delineate an increase in the risk of multiple births. Table 11 shows that when the periods 1960-69 and 1979-88 are compared from the vantage point of 1935-1944, the rate of twin births decreases, but at a different rhythm from that of high parity births (5+). The decrease in twin births is much weaker. *The trend in triplet deliveries is even more remarkable: their frequency increases rather than decreases.*

Each of these periods is chosen for patterns of fertility behaviour peculiar to each. In the 1935-1944 period, the rate of high-parity births was elevated, and the probability of twin and triplet deliveries increased. In the 1960-1969 period, the rate of high-parity births was much lower, so the number of twin deliveries fell. In the last ten years, the rate of high-parity births has become negligible but, while twin deliveries have become somewhat less frequent, triplet deliveries have increased considerably.

The most recent trends are partly the result of medical intervention. Drugs and other treatment regimens administered to women who have problems conceiving trigger the release of more than one ovum in the course of the menstrual cycle, and increase the probability that more than one embryo will develop. If the fetuses survive, then twins or triplets are born. In vitro fertilization has even stronger effects. Several embryos are voluntarily implanted to counteract high mortality with the hope that at least one fetus will survive.

Table 11. Multiple Births, Canada, 1935-1988

Period	Total Deliveries	Twin Deliveries	Triplet Deliveries	Rate of Twin Deliveries (per 10,000 deliveries)	Rate of Triplet Deliveries (per 10,000 deliveries)	Proportion of Births of Order 5 + (per 1,000 births)
1935-1944	2,498,124	28,121	240	112.57	0.96	255.30
1960-1969	4,115,409	42,849	377	104.12	0.92	170.07
1979-1988	3,624,315	35,012	512	96.60		21.05

Source: Statistics Canada, *Vital Statistics, Births and Deaths*, Catalogue No. 84-204 and calculations done in the Demography Division at Statistics Canada.

The secondary effects of these fertility practices have greatly contributed to a rise in the number of multiple births. Will they one day be demanded by women or couples who want more than one child, but not at the price of several pregnancies?

MORTALITY

The Canadian Situation

After some slow improvements, life expectancy showed surprisingly rapid progress between 1976 and 1981. Male life expectancy rose by 1.62 years, while that for females rose by 1.36 years. Gains were significantly smaller, but still remarkable, over the 1981 to 1986 period, at 1.14 years for men and 0.67 years for women. Now more than midway into the 1986-1991 period, we may wonder what progress will be made.

Intercensal life tables⁴ cannot claim the precision of life tables established every five years from census data, but when carefully constructed, they provide some good indications. The 1988 table estimated male life expectancy at 73.44 years, and female life expectancy at 80.22 years.

Depending on whether we refer to the 1986 table from the Centre for Health Statistics or to the adjusted table from the 1988 Report on the Demographic Situation in Canada, the two-year gain for men would be between 0.4 years of life and 0.13 years, and the five-year extrapolation would yield gains of between 0.32 years and one year. Gains for women would situate themselves between 0.27 and 0.49 years after two years, and between 0.68 and 1.22 years after five years. Taking into account the denominators used to obtain the rates, it is the smaller gains that seem most probable. *In either case, the gains made between 1976 and 1981, however encouraging, appear now to be slowing down.*

Infant Mortality

The death of children at less than one year of age has played an historically important role in demographic evolution. In a closed population these deaths have the same affect on population growth as a fall in fertility with obvious repercussions on population replacement. The net replacement rate will move further away from the gross rate as infant mortality increases, and this mortality is the most important between birth and the mean age at childbearing.

Infant mortality also has a major effect on the most widely used summary measure of general mortality, that of life expectancy at birth. High levels of

⁴ Based on deaths in 1987 and 1988.

infant mortality lower considerably the average number of years of life of the cohort for which they are calculated because of the years not lived by individuals who die prematurely. Until recently, the greatest part of the gain in life expectancy between two dates was due to a reduction in infant mortality. Before 1976 for women, and before 1981 for men, life expectancy was highest at one year of age. Since then, it has been as high at birth as at one year of age⁵.

Another reason demographers monitor infant mortality lies in its direct relationship with the general mortality level; that is, the mortality level that prevails at all other ages. Mastery of the causes of death at different ages of life manifests itself in the causes that kill young children, and such causes are easier to measure.

A reduction in infant mortality generally marks the beginning of the demographic transition in populations, initiating the population growth that is characteristic of the first phase. The Canadian population, like any other, has gone through this transition from a period of high infant mortality to the low levels of the present. Until the end of the 19th century, levels in Canada were similar to what can now be observed in the most underdeveloped countries (in the order of 200 per 1,000), but these have decreased in the twentieth century with improvements in sanitation and living conditions. The infant mortality rate was still 91 per 1,000 in 1930, but during the baby boom in 1950, it had declined to 41 per 1,000. This spectacular decline (Canada followed the same course as other Western countries) raises the question of how low infant mortality will fall in the future. Whereas science hopes to eliminate it completely in the long-term, instinct dictates that death will retain some dominion.

In the 1950s⁶, it was thought that Sweden's low infant mortality rate would be difficult to surpass. But the rate has dropped unceasingly throughout all the advanced nations, even if the pace has slowed. Excluding Japan, where registration of live births⁷ has been called into question by the World Health Organization, Sweden still has the lowest infant mortality rate (5.4 per 1,000) as of 1986. Canada has the second lowest rate, at 7.2 (figures 111 A and 111

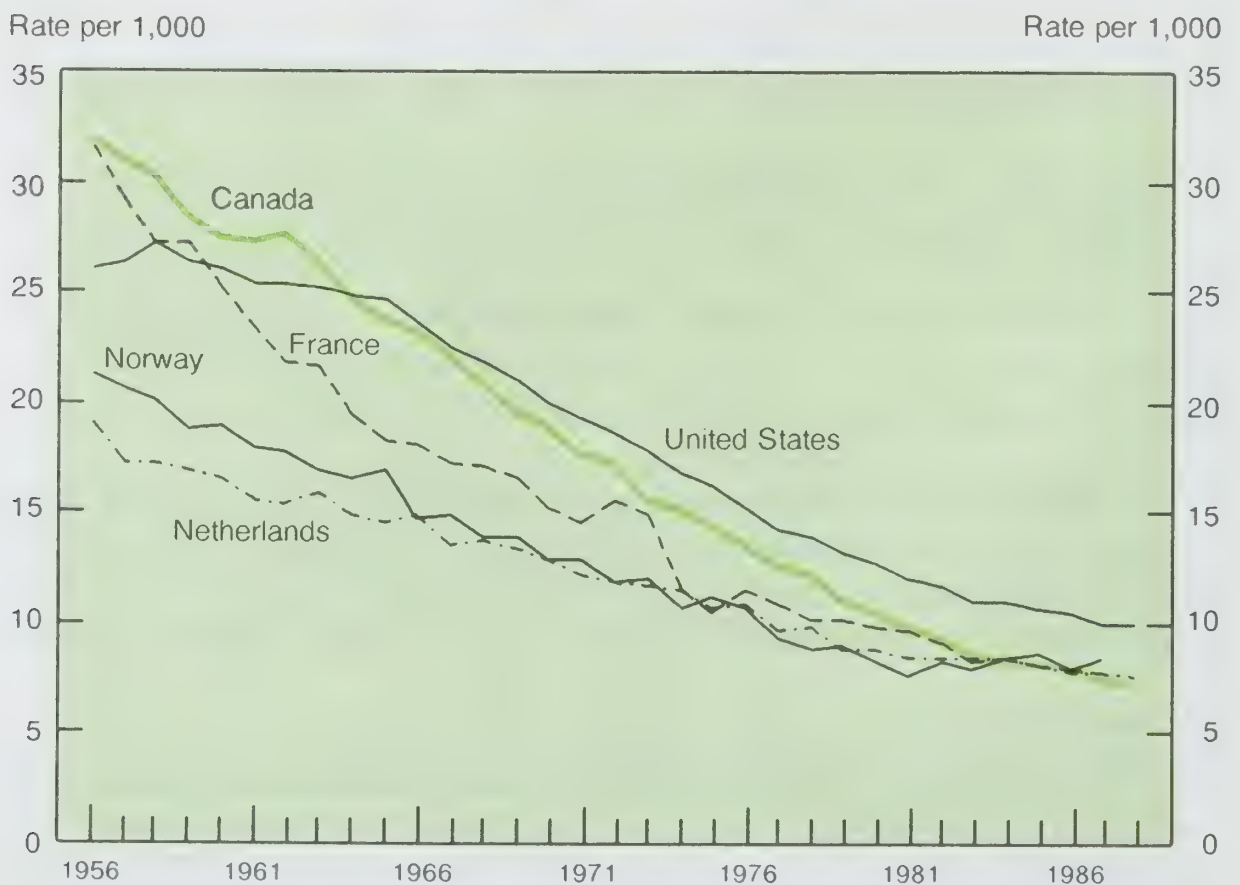
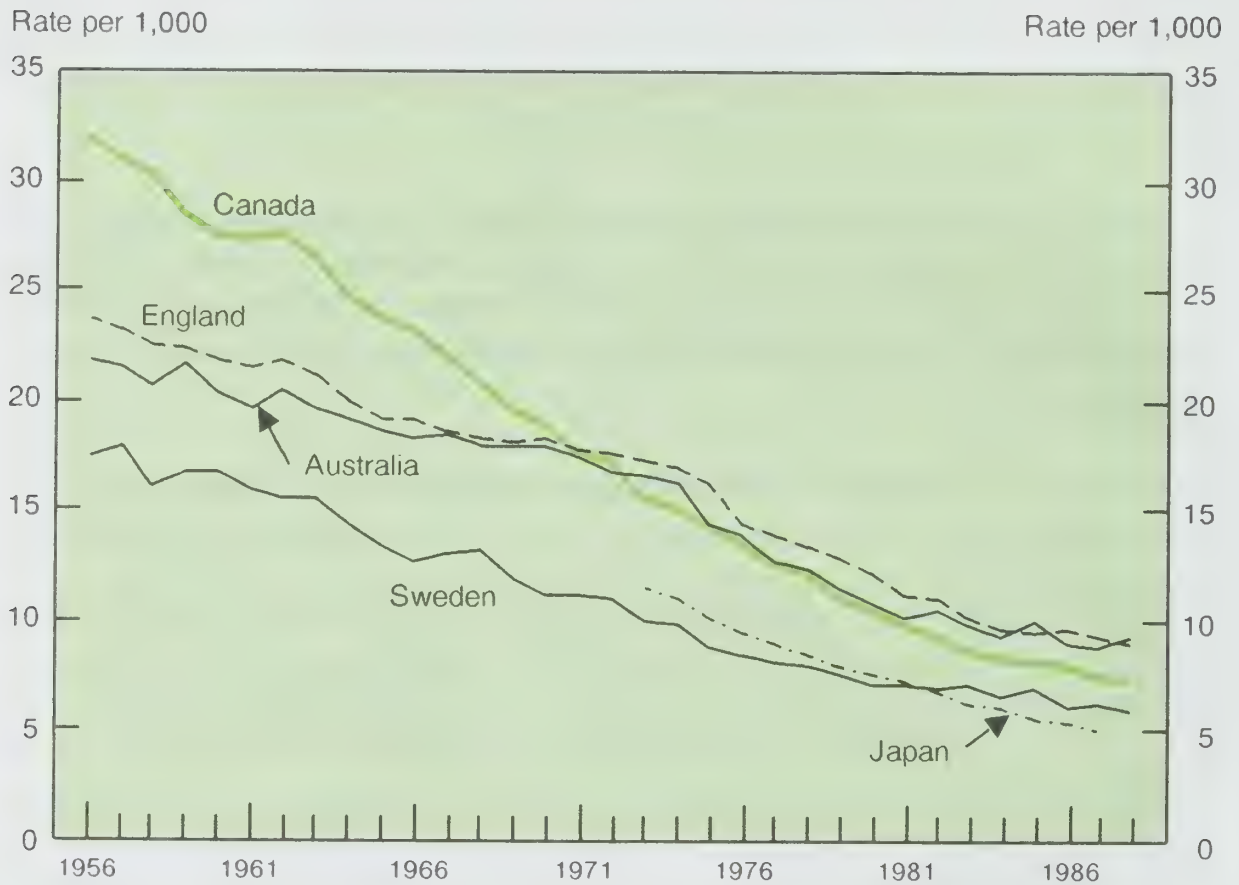
The speed of progress cannot be over-emphasized. Of the eight most advanced countries, Canada had the highest rate of infant mortality in 1956 at 31.9, while Sweden had already reduced its rate to 17.3. Canada was fifth to go beyond the psychological threshold of 10 in 1981, beating Australia

⁵ In 1976, male life expectancy was the same at one year as at birth.

⁶ J. Bourgeois Pichat wrote in *Population* (1952, no. 3) that the Swedish rates of 13% for males and 9% for females seemed to be the bottom limits, given the current state of medical science.

⁷ It is possible that children born alive, but who die shortly after, are counted together with still births, and this obviously reduces infant mortality.

Chart 3
Infant Mortality Rates for Selected Countries, 1956-1988



Source: United Nations, Demographic Yearbooks. Annual.

(1983), England (1984), and the United States (1987). Comparison with France is difficult because their calculations are done differently from those of other countries.

The reduction of infant deaths below thresholds once considered insurmountable has several origins. Aside from progress in medicine and obstetrics, there are the more diffuse effects of reduced fertility and fewer births. Abortion has also played a role where possibilities of congenital malformation leading to early death seem strong. Medical intervention to save the lives of infants whose health at birth is very precarious has well-known consequences for changing the age distribution of deaths in the first year of life⁸.

Figures IV and V show how around 1970 the percentage of neonatal deaths (before one month) in infant mortality increased even as the rate of infant mortality was declining. This meant that victories were being won against post-neonatal (between one and twelve months) and “accidental” deaths (use of the term “exogenous” is now contested). But since around 1970 the proportion of neonatal deaths in infant mortality has declined while that of post-neonatal fatality has increased, especially between one and six months of age. The common explanation now is that medical intervention was able to delay some deaths that would have occurred soon after birth. As a result, the proportion of early neonatal deaths, as well as their rate, dropped. These changes in the distribution of the timing of deaths should not overshadow the fact that overall, infant mortality continues to decline (Figures IV and V).

The Canadian Evolution

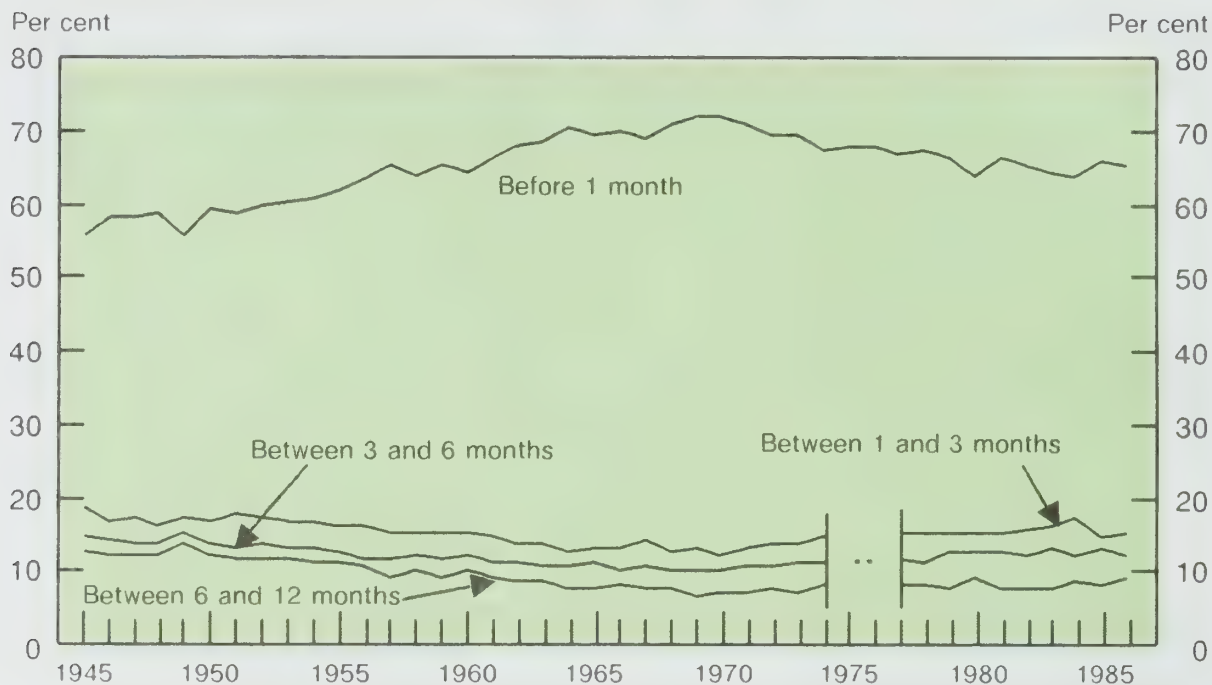
Figures VIa to VIc reveal that infant mortality curves are more uneven in sparsely populated provinces, where they are more sensitive to random causes. This is the case in the Territories, Prince Edward Island, Manitoba, and Saskatchewan. But as in the more populous provinces, where the shape of the curves is regular, the same general downward trend can be observed. Undeniably, provincial rates are also converging. Progress in the reduction of deaths in Eastern Canada was mediocre compared with regions west of Quebec at the close of the War. But “catching up” has been spectacular in Newfoundland, but more especially in Quebec, where the rate is now even lower than Ontario’s which was by far the lowest at the beginning of the period.

The Canadian infant mortality tables for 1987 give detailed information on the probabilities of death from birth to the first birthday for both sexes. An excess male mortality of 28% and a high concentration of deaths in the first hours of life continue to be evident (Table 12).

⁸ Catherine Lantoiné et R. Pressat: Nouveaux aspects de la mortalité infantile. *Population*, 39^{ième} année, mars-avril 1984, n° 2.

Chart 4

Evolution in the Percentage of Infant Deaths Before 1 month, Between 1 and 3 months, Between 3 and 6 months, and Between 6 and 12 months, Canada, 1945-1986

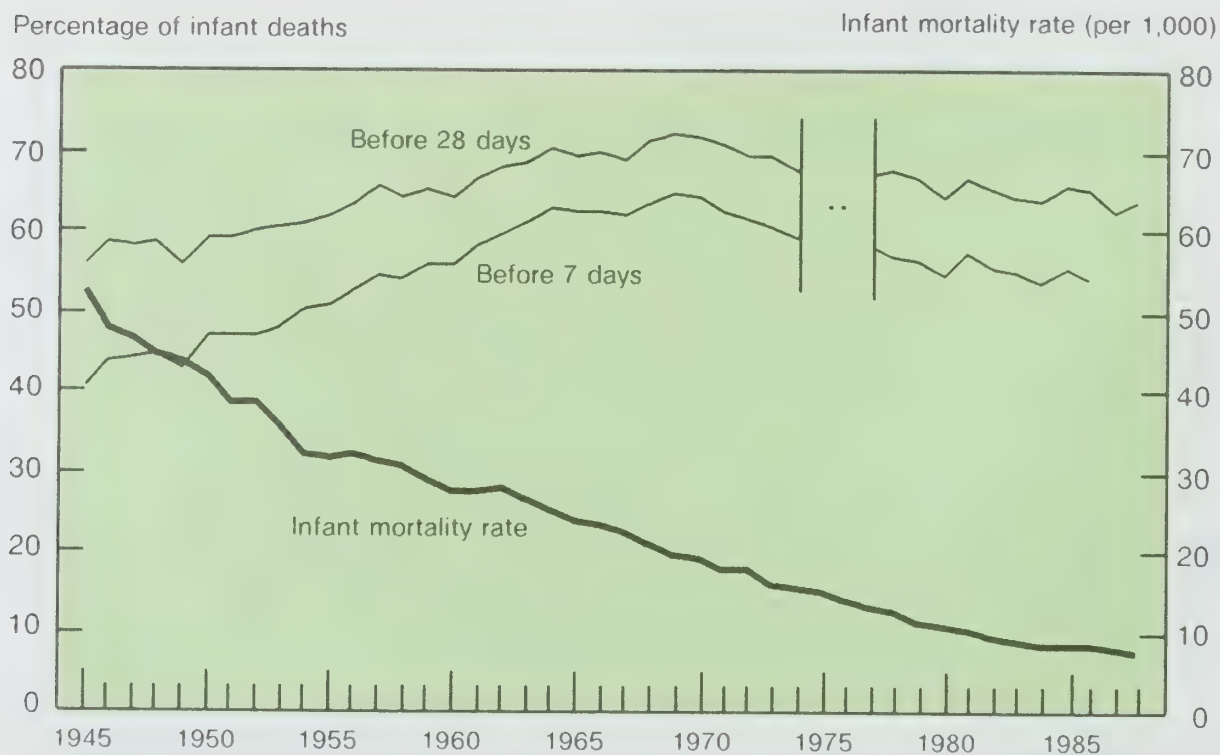


.. data not available

Source: Calculated in the Demography Division, Statistics Canada.
Based on data published by the Canadian Centre for Health Information.

Chart 5

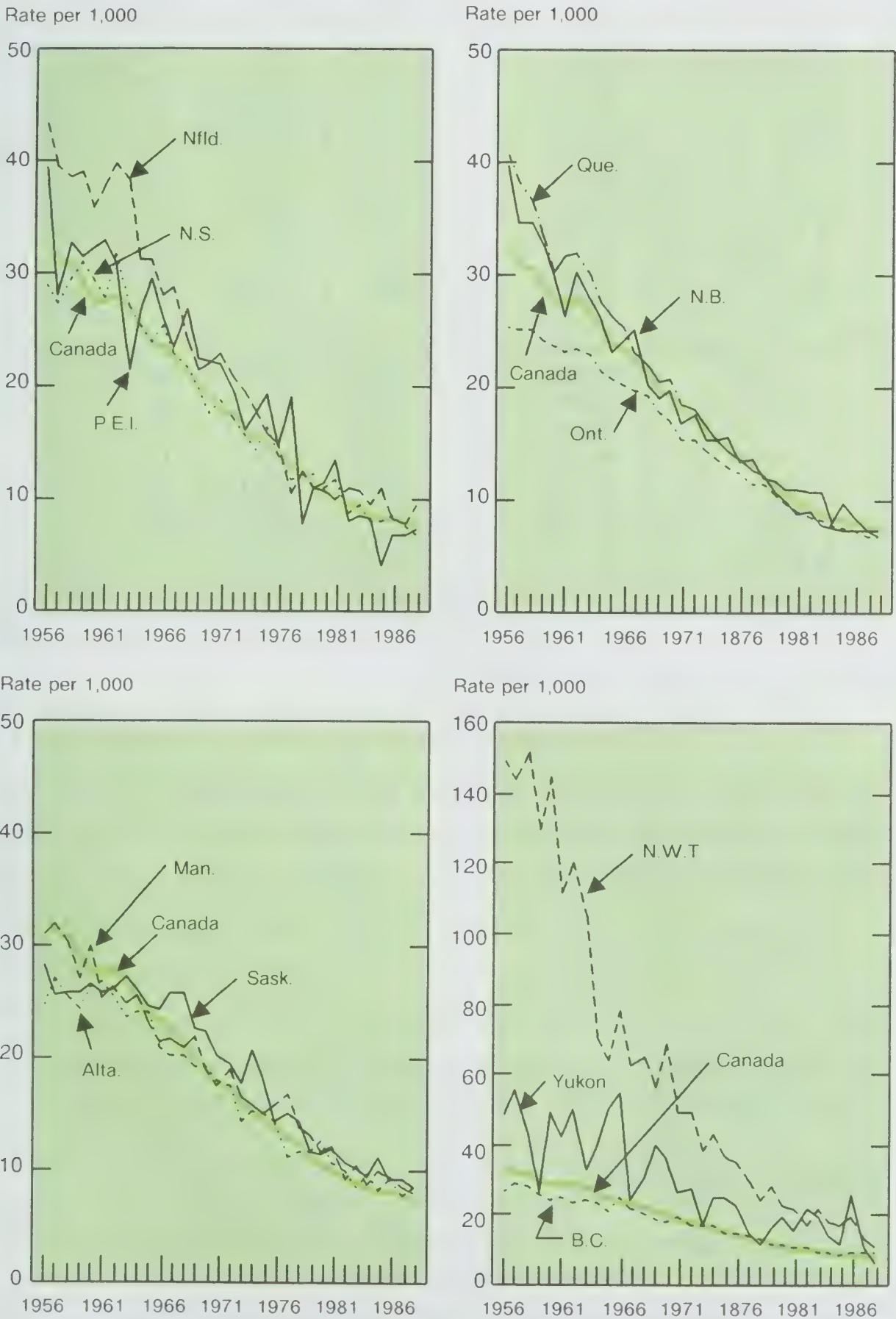
Infant Mortality Rate and Percentage of Infant Deaths Before 7 Days and Before 28 Days, Canada, 1945-1988



.. data not available

Source: Calculated in the Demography Division, Statistics Canada.
Based on data published by the Canadian Centre for Health Information.

Chart 6
Infant Mortality Rate, Canada and Provinces, 1956-1988



Sources: Vital Statistics, Births and Deaths, Catalogue no. 84-204, annual.

Table 12. Life Table for Children Under One Year of Age, Canada, 1987

Age Interval	Male			Female		
	Lx	Dx	Qx	Lx	Dx	Qx
0 - 1 day	100,000	304	0.00304	100,000	241	0.00241
1 - 2 days	99,696	44	0.00044	99,759	31	0.00031
2 - 3 days	99,652	33	0.00034	99,728	28	0.00028
3 - 4 days	99,619	21	0.00020	99,700	18	0.00017
4 - 5 days	99,598	17	0.00018	99,682	9	0.00010
5 - 6 days	99,581	14	0.00014	99,673	8	0.00007
6 - 7 days	99,567	11	0.00012	99,665	8	0.00008
7 - 14 days	99,556	46	0.00046	99,657	34	0.00034
14 - 21 days	99,510	23	0.00023	99,623	20	0.00020
21 - 28 days	99,487	20	0.00019	99,603	16	0.00016
28 days - 2 months	99,467	70	0.00070	99,587	55	0.00056
2 - 3 months	99,397	67	0.00067	99,532	46	0.00046
3 - 4 months	99,330	46	0.00046	99,486	36	0.00036
4 - 5 months	99,284	33	0.00034	99,450	25	0.00025
5 - 6 months	99,251	22	0.00022	99,425	15	0.00015
6 - 7 months	99,229	18	0.00018	99,410	14	0.00014
7 - 8 months	99,211	12	0.00013	99,396	11	0.00012
8 - 9 months	99,199	12	0.00012	99,385	10	0.00010
9 - 10 months	99,187	8	0.00008	99,375	9	0.00009
10 - 11 months	99,179	8	0.00008	99,366	9	0.00009
11 - 12 months	99,171	7	0.00007	99,357	8	0.00008

Source: Canadian Centre for Health Information.

Progress in the fight against death has been remarkable at all ages, but especially at the infancy stage. From life tables for the period 1931 to 1986, we observe that the age at which the risk of death in the first year of life is equivalent to the mortality quotient (the probability of death in a given year) has not ceased to drop (Table 13). In 1931 a male infant had as much chance of dying before his first birthday as did a 77 year old man in the year, but his chances were equivalent to that of a 55 year old man in 1986. The same pattern holds true for female infants, although their generally lower mortality gives them a higher age at which death probabilities are equivalent, despite a lower infant mortality rate. The decline has been continuous.

Differential Infant Mortality

Even though infant mortality has declined as a result of improvements in living conditions, there are social class disparities in Canada as elsewhere in the world. These disparities manifest themselves in different levels of mortality. The Canadian Centre for Health Information at Statistics Canada

Table 13. Age at which the Infant Mortality Rate is Equal to the Mortality Quotient (Probability of Dying During the Year)

Year	Male	Female
1931	77	75
1941	73	73
1951	70	70
1956	67	69
1961	65	68
1966	63	67
1971	61	66
1976	59	64
1981	56	60
1986	55	59

Source: Statistics Canada, *Longevity and Chronological Mortality Tables 1921-1981*, Canada and Provinces, Catalogue 89-506 and the mortality table for 1986, unpublished but available from the Canadian Centre for Health Information.

recently provided interesting information on this subject⁹. The relationship between infant mortality and average income for urban neighbourhoods was analyzed (an ecological approach). Income was divided into five categories, each of which corresponded to an income quintile. The conclusions were clear, but not surprising:

- 1) Infant mortality declined in all classes between 1971 and 1986;
- 2) Mortality levels increase as income decreases; and
- 3) Disparities between relative incomes persist over time (Table 14).

This geographical study is particularly convincing in the case of infant mortality, because a selective migration bias cannot be invoked to explain the results as in the case of general mortality analysis.

Aids

AIDS (Acquired Immune Deficiency Syndrome) is a mortal illness that strikes terror in the late 20th century, and is caused by the HIV (Human Immunodeficiency Virus). It does not yet have a strong presence in mortality statistics. In fact, the first of HIV deaths were not published by Statistics Canada until 1987 (Statistics for 1989 are not yet available). Between 1987 and 1988, AIDS increased by 26%.

⁹ Statistics Canada: "Changes in Mortality by Income in Urban Canada from 1971 to 1986", Health Reports, Volume 1, Number 2, 1990.

Table 14. Infant Mortality Rates (per 1,000) by Income Quintile and Sex, Urban Canada, 1971 and 1986

Income Quintile	Men			Women		
	1971	1986	1986-71 Difference	1971	1986	1986-71 Difference
Total	17.2	8.3	-8.9	12.8	6.7	-6.1
Quintile 1	11.4	5.9	-5.5	8.9	5.7	-3.2
Quintile 2	15.0	6.0	-9.0	9.7	5.4	-4.3
Quintile 3	17.3	9.3	-8.0	13.0	6.0	-7.0
Quintile 4	18.6	8.4	-10.2	14.4	7.6	-6.8
Quintile 5	22.7	11.9	-10.8	17.2	9.1	-8.1
Difference Q5-Q1	11.3	6.0	-5.3	8.3	3.5	-4.8
Ratio Q5/Q1 (x 100)	199.1	202.9	3.8	193.6	161.3	-32.3

Source: Statistics Canada, Health Reports, Volume 1 No. 2, *Changes in Mortality by Income in Urban Canada from 1971 to 1986*, Russell Wilkins, Owen Adams and Anna Brancker.

According to the Bureau of Epidemiology and Surveillance, Federal Centre for AIDS, Health Protection Branch, National Health and Welfare, since the first case of AIDS was reported in Canada in 1982, there have been over 4,000 cases among Canadians. AIDS is the result of gradual destruction of the immune system after infection by HIV. Death caused by HIV can occur without the development of AIDS, but most people who die with HIV infection die as a result of AIDS. At this time, given our current understanding of the natural history of HIV infection and AIDS, it is probably true that everyone who becomes infected with HIV, who survives long enough, will develop AIDS. However, the incubation period for AIDS can be long. Some studies have determined that within 11 years, only 50% of people with HIV will have developed AIDS.

It is, in part, because of the difficulty of recognizing an HIV infected person that AIDS cases are counted instead. The case definition for AIDS, developed at the Center for Disease Control in Atlanta, Georgia, is the one adopted by the Federal Centre for AIDS at Health and Welfare Canada.

For the moment, it is safer to confine the inquiry to counts of these cases. Rates that could be calculated, even age-specific ones, would not be very revealing because the populations compared are heterogeneous, and the sub-populations at risk within the groups are impossible to measure quantitatively. This disparity is particularly evident when Alberta and British Columbia are compared. With almost identical population numbers, there were 114 deaths in one province in 1988, and only 32 in the other. Statistics at the national level clearly show enormous male excess mortality. *They also show a concentration of deaths in the 30-44 age group.* In 1987, this concentration was 58%, and in 1988, it was 57% (Table 15).

Table 15. Deaths Attributed to H.I.V. by Age Groups and Sex, Canada, 1987 and 1988

Year	Sex	Age Groups					Total
		0-14	15-29	30-44	45-59	60 +	
1987	Men	1	85	293	87	22	488
	Women	5	7	12	8	5	37
1988	Men	2	96	361	126	29	614
	Women	3	10	28	7	9	47

Source: Statistics Canada, unpublished information available from the Canadian Centre for Health Information.

However frightening it may seem for the future, AIDS is not yet among the leading causes of death. In 1989, such deaths amounted to only 17% of deaths attributed to suicide, itself a minor cause.

AIDS is still one of the most important causes of death for men in their twenties¹⁰, second only to accidents. In light of the number of years of young adult life that are lost, it remains an issue of great public concern. In a communication, Dr. G. Wells, LCDC, at the “Joint Statistical Meeting”, Annaheim, California in 1990, says that between 1983 and 1988, AIDS became the largest contributor to potential years of life lost for men between 20 and 49 years of age.

The exact number of Canadians infected by the HIV is unknown. At this time, the number is estimated to be between 20,000 and 30,000. This number, however, does not have a high level of statistical significance. It might be more fruitful to develop a demographic model which takes into account entries into and exits from this illness, as a way to evaluate, all other things being equal, the future evolution of the disease¹¹.

INTERNATIONAL IMMIGRATION

Canada admitted a total of 191,015 immigrants in 1989. The number 160,000 was described as the upper limit on expected entrants in the Annual Report on Future Immigration Levels. The actual count is therefore running about

¹⁰ In 1988, deaths from HIV infection were situated: in fifth place for the 20-24 year age group (19 deaths); in third place for the 25-29 year age group (77 deaths); in second place for the 30-34 year age group (28 deaths); in fourth place for the 35-39 year age group (21 deaths); in fourth place for the 40-44 year age group (112 deaths); in fifth place for the 45-49 year age group (73 deaths); in eighth place for the 50-54 year age group (35 deaths). Information from A. Brancker, Health Information Centre).

¹¹ Nicolas Brouard, “S.I.D.A.: durée d’incubation, Taux de croissance, taux de reproduction nette” – Population, Nov.-Déc. 1987, n° 6.

Table 16. The Immigrant Population by Place of Birth, Canada, 1968-1989

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
EUROPE	118,791	87,842	75,006	52,733	51,175	70,080	84,780	68,733	49,470	40,967	30,003
Great Britain	33,814	28,790	23,688	14,230	16,637	23,533	33,088	29,454	19,257	16,634	10,698
Portugal	8,720	7,917	8,594	9,776	9,280	14,417	17,268	9,158	6,194	4,238	3,420
France	5,370	3,612	2,958	2,059	1,880	2,411	2,811	2,831	2,415	2,090	1,322
Greece	7,952	7,106	6,440	4,822	4,008	5,800	5,654	3,954	2,429	1,874	1,324
Italy	20,880	10,685	8,659	5,937	4,847	6,176	5,818	4,919	4,008	3,088	2,647
Poland	1,854	1,563	1,403	1,527	1,664	1,629	1,373	1,191	1,366	1,293	1,153
Other	40,201	28,163	23,264	14,382	12,859	16,114	18,768	17,226	13,801	11,750	9,439
AFRICA	7,002	5,953	4,017	3,463	8,504	9,977	12,792	11,715	8,617	6,595	4,561
ASIA	23,775	24,451	23,682	24,230	25,938	46,777	55,290	52,024	46,482	32,904	25,332
Philippines	2,762	3,138	3,305	4,213	4,113	6,886	9,897	7,688	6,109	6,101	4,368
India	4,675	6,736	7,089	6,301	6,746	11,672	16,016	13,401	8,562	6,772	6,077
Hong Kong (B.C.C.)	3,353	3,353	2,250	2,581	3,396	9,155	7,673	6,438	6,442	3,903	2,825
China	5,401	5,610	3,397	3,694	3,813	6,842	6,581	6,235	6,003	4,037	3,181
Other	7,584	5,614	7,641	7,441	7,870	12,222	15,123	18,262	19,366	12,091	8,881
NORTH AND CENTRAL AMERICA	18,482	20,927	22,670	22,508	21,137	23,861	25,147	19,268	16,494	12,755	9,713
United States	17,076	19,258	20,859	20,723	19,176	21,391	22,454	16,729	14,278	10,723	8,254
CARIBBEAN AND BERMUDA	9,021	13,925	13,371	11,300	8,774	19,809	24,441	18,790	15,066	11,822	8,330
AUSTRALASIA	4,145	3,523	3,462	2,182	1,646	1,893	1,928	1,574	1,367	1,147	944
SOUTH AMERICA	2,368	4,158	4,506	4,598	4,036	10,353	12,204	13,102	10,496	7,774	6,682
OCEANIA	..	..	..	..	..	..	1,882	2,675	1,437	950	724
OTHER	390	752	999	886	796	1,450	1	..	..	..	24
TOTAL	183,974	161,531	147,713	121,900	122,006	184,200	218,465	187,881	149,429	114,914	86,313

Table 16. The Immigrant Population by Place of Birth, Canada, 1968-1989 - Concluded

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
EUROPE	32,633	40,210	44,784	44,356	23,664	20,581	18,530	22,518	36,486	39,187	50,725
Great Britain	11,806	16,445	18,912	14,525	4,945	4,657	3,998	4,612	7,650	7,896	7,045
Portugal	3,742	4,222	3,292	2,308	1,373	869	917	1,981	5,904	3,985	5,084
France	1,547	1,461	1,681	1,821	1,237	970	994	1,124	1,486	1,819	2,126
Greece	1,187	1,044	924	884	617	578	579	555	750	595	792
Italy	2,134	1,873	2,057	1,496	879	892	733	785	1,123	961	1,204
Poland	1,263	1,395	4,093	9,259	5,374	4,640	3,642	5,283	7,132	9,360	16,017
Other	10,954	13,770	13,825	14,063	9,239	7,975	7,667	11,480	12,441	14,571	18,457
AFRICA	4,412	5,383	5,901	5,196	3,913	3,851	3,912	5,189	9,048	9,604	12,434
ASIA	51,740	73,026	50,759	43,863	38,183	42,730	39,438	42,417	69,146	83,284	11,877
Philippines	3,927	6,147	5,978	5,295	4,597	3,858	3,183	4,203	7,420	8,651	11,877
India	5,486	9,531	9,415	8,858	7,810	6,082	4,517	7,481	10,635	11,942	10,705
Hong Kong (B.C.C.)	3,548	3,874	4,039	4,452	4,238	5,013	5,121	4,318	12,618	18,355	15,471
China	5,821	8,965	9,798	6,295	5,321	5,769	5,166	4,178	6,611	7,903	8,882
Other	32,958	44,509	21,529	18,963	16,217	22,008	21,451	22,237	31,862	36,433	47,710
NORTH AND CENTRAL AMERICA	9,128	9,442	10,183	10,030	10,200	10,223	10,898	12,412	13,691	11,495	11,877
United States	7,821	8,098	8,695	7,841	6,136	5,727	5,614	6,094	6,547	5,571	5,801
CARIBBEAN AND BERMUDA	6,535	7,515	8,797	8,717	7,258	5,696	6,240	8,948	11,210	9,481	10,947
AUSTRALASIA	1,068	1,215	1,020	758	394	430	399	449	540	528	633
SOUTH AMERICA	5,810	5,381	6,114	6,892	4,825	4,046	4,273	6,546	10,833	7,210	8,571
OCEANIA	736	944	1,024	1,183	720	599	612	740	1,144	1,140	1,183
OTHER	34	1	36	152	..	83	..	..	..	..	..
TOTAL	112,096	143,117	128,618	121,147	89,157	88,239	84,302	99,219	152,098	161,929	161,929

Source: Employment and Immigration, *Immigration Statistics*, 1968-1989.

20% over the forecasts. The 1990 situation promises to unfold in a similar manner. The established maximum estimate of 175,000 persons will undoubtedly be exceeded. With already 71,477 entries by the beginning of June, the Estimates Service of Employment and Immigration Canada expects this number to reach about 215,000 by 31 December, some 23% higher than the estimates had indicated. This expected surplus is due, in part, to the large number of visa applications pending from Eastern Europe which probably will be granted before the end of the year.

Even if the figure of 215,000 immigrants is reached in 1990, it will not be a record. Almost 219,000 immigrants were admitted in 1974. The immigration rate is expected to reach 8.2 per 1,000 in 1990, and although far below the 54 per 1,000 reached in 1913 when the Prairies were being settled, this level is still rather high from the perspective of the recent past.

Countries of Origin

Immigration is not subjected to inertia as much as other demographic phenomena, but nor does it tend to show sudden fluctuations from one year to the next. This is partly because of the time required to process applicants' files. The source countries of immigrants for the year 1989 bear a close resemblance to 1988 (Table 16). Asia once again provided half of all entrants, although Hong Kong supplied fewer entrants than before. Other countries from where large contingents have arrived include Vietnam (9,440), Taiwan (3,119), Iran (4,270), South Korea (2,989), and Malaysia (2,417).

The repercussions of political change in Eastern Europe on migration into Canada over the medium-term are difficult to evaluate. Polish immigration has already gone from 1,153 entrants in 1978 to 16,017 in 1989. Now that ~~discretionary immigration restrictions have been lifted in most of the Eastern Bloc countries, an increase in the number of Eastern European applicants seems quite probable. As with other applicants, these immigrants will have to meet the requirements of the Department so as to accumulate enough points for their admission.~~ Those who will be admitted, as in the case of Polish immigrants, will be able to sponsor fellow citizens and bring over relatives by virtue of family reunification (Table 16).

Immigrant Destinations

Even though Ontario has a negative net migration balance (see below), it is the province where the majority of international immigrants want to settle. In 1989, 104,315 of the 191,015 immigrants, or 55%, designated Ontario as their province of choice. Quebec came a far second at 33,978 designations (18%), followed by British Columbia at 25,170 (13%).

Every immigrant that is accepted must become a permanent resident of Canada or lose all rights and privileges. Not all accepted entrants continue to reside in Canada, although the exact number of those who remain is unknown (Table 17).

Categories of Immigrants

There was no appreciable change in the distribution of immigrants by category in 1989. The "investor" category continues to be popular. While the total number of immigrants increased by 20% in one year, the investor class more than doubled (118%).

INTERNAL MIGRATION

Internal migration in Canada consists of some well-known movements that historically have shown a displacement toward the West. Movers have nevertheless become increasingly sensitive over the years to the economic opportunities of the moment, whether in commercial, industrial or service locales. It is in this ever changing context that the data must be interpreted. Although not perfectly precise, they are derived from the best possible estimates, based on information gathered from tax and family allowance files (Tables 18 and 19).

The data confirm the following trends for the past few years:

- 1) Net interprovincial movements east of Quebec result in weak net migration balances becoming less and less negative;
- 2) Quebec has posted a migration deficit of about 7,500 people for each of the last three years;
- 3) Migration is much more volatile in Ontario and the West:
 - a) Ontario's appeal to Canadians from other provinces started to drop in 1987 and is continuing to erode. Its net migration went from 40,300 persons to -6,600 in three years;
 - b) There is a renewal of interest in western destinations, especially British Columbia. The positive balance of this province increased from 17,618 in 1987 to 39,459 in 1989, a net gain of 124%. At the same time, Alberta recovered from the disastrous losses of the 1980s (deficits of 27,600 in 1987, and 4,400 in 1988) to post an even balance in 1989. Ontario's most damaging imbalances in 1989 were with British Columbia, which it lost about 13,000 persons. Exchanges with Alberta were almost evenly balanced. On the other hand, the attraction of popular British Columbia did not extend to the east beyond the Ontario border; (Table 20)

Table 17. Percentage Distribution of Accepted Immigrants by Province of Intended Destination, 1956-1989

Province	Year											
	1956	1961	1971	1981	1982	1983	1984	1985	1986	1987	1988 ¹	1989 ¹
Newfoundland	0.3	0.5	0.7	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.2
Prince Edward Island	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1
Nova Scotia	1.0	1.3	1.5	1.1	1.0	0.9	1.2	1.2	1.1	0.8	0.8	0.8
New Brunswick	0.5	1.1	0.9	0.8	0.6	0.6	0.7	0.7	0.7	0.4	0.4	0.5
	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8
	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Manitoba	3.5	3.5	4.4	4.2	4.1	4.5	4.4	4.1	3.8	3.2	3.1	3.2
Saskatchewan	1.3	1.9	1.2	1.9	1.8	2.0	2.4	2.3	1.9	1.4	1.4	1.1
Alberta	6.0	6.7	7.1	15.0	14.8	12.0	12.1	10.7	9.8	7.9	8.7	8.4
British Columbia	10.8	10.2	15.5	17.1	15.7	16.2	15.0	14.5	12.7	12.4	14.3	13.2
Yukon and Northwest Territories	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Unknown	2.4	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total (in numbers)	164,857	71,689	121,900	128,618	121,147	89,157	88,239	84,302	99,219	152,098	161,929	191,015

¹ Provisional data.

Source: Employment and Immigration, *Immigration Statistics*, Catalogue No. WH-5-006 and unpublished data.

Table 18. Net Migration, Provinces and Territories, 1970-1989

Year	Newfound- land	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia	Yukon and Northwest Territories	Total
1970	-5,950	-29	-3,967	-2,373	-41,156	54,590	-7,707	-28,358	9,898	22,579	2,473	412,559
1971	733	-129	-755	1,798	-25,005	18,580	-7,251	-17,986	2,408	25,034	2,573	405,301
1972	-189	858	2,845	241	-19,891	8,227	-7,735	-17,296	6,538	24,927	1,475	375,185
1973	-2,510	478	2,107	2,841	-14,730	-5,275	-2,200	-13,261	2,698	30,537	-685	433,993
1974	-618	1,386	1,576	4,192	-11,852	-22,163	-5,400	-4,835	14,810	22,655	249	421,336
1975	915	814	4,454	7,572	-12,340	-25,057	-4,134	6,555	23,463	-2,864	622	385,327
1976	-2,732	309	361	1,640	-20,801	-10,508	-3,655	3,819	34,215	-1,490	-1,158	376,971
1977	-4,009	614	-1,277	-886	-46,536	8,596	-3,789	384	32,344	15,507	-948	366,918
1978	-3,540	25	-109	-1,644	-33,424	415	-9,557	-3,701	31,987	20,698	-1,150	348,929
1979	-4,217	-225	-1,840	-2,219	-30,025	-15,317	-13,806	-3,510	39,212	33,241	-1,294	370,862
1980	-3,082	-1,082	-2,494	-4,165	-24,283	-34,919	-11,342	-4,382	46,933	40,165	-1,349	372,167
1981	-6,238	-783	-2,465	-4,766	-22,549	-19,665	-3,621	-520	40,243	21,565	-1,201	380,041
1982	261	-6	1,591	2,183	-28,169	19,614	1,498	1,743	3,961	-2,019	-657	322,634
1983	-1,092	799	3,861	2,296	-19,080	32,825	950	2,501	-26,246	4,029	-843	285,599
1984	-3,585	524	2,963	812	-10,943	36,691	-49	733	-30,591	3,505	-60	273,323
1985	-5,019	-13	-234	-1,559	-6,023	33,414	-1,755	-5,014	-9,568	-3,199	-1,030	281,275
1986	-4,682	-493	-739	-2,897	-3,020	42,916	-3,039	-7,020	-20,293	910	-1,643	302,352
1987	-4,374	301	-2,183	-1,762	-7,410	40,278	-4,751	-9,043	-27,595	17,618	-1,079	318,890
1988	-1,785	586	-1,874	-1,379	-7,632	12,973	-9,284	-16,149	-4,361	29,007	-102	355,249
1989 ¹	-1,004	178	-477	2,051	-7,533		-8,910	-16,641	15		-548	371,914

¹ Provisional data.

Source: Statistics Canada, *Quarterly Demographic Statistics*, Demography Division, Estiamtes Section.

- c) For the quintessentially “prairie” provinces of Manitoba and Saskatchewan, internal migration over a three-year period shows signs of deterioration as negative migration balances have worsened. This is especially true for Saskatchewan, which lost over 32,000 persons in two years.

Table 19. Interprovincial Migratory Movement, Canada, 1989

Number of moves: 371,914

Origin	Destination											
	New-found-land	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon	Northwest Territories
Newfoundland	0	161	1,995	773	424	5,546	256	134	1,237	669	21	157
Prince Edward Island	152	0	837	590	267	1,173	94	54	200	222	3	30
Nova Scotia	1,547	937	0	3,508	1,607	8,902	565	260	2,011	1,832	72	117
New Brunswick	381	530	2,987	0	2,457	6,312	326	146	1,179	901	10	84
Quebec	261	100	1,296	2,783	0	25,972	857	462	2,962	4,014	48	251
Ontario	6,249	1,353	8,931	6,566	21,246	0	6,160	2,726	17,766	25,674	242	555
Manitoba	235	65	562	489	899	8,328	0	2,902	6,262	7,688	152	255
Saskatchewan	151	86	265	201	373	4,560	3,648	0	14,951	8,834	144	363
Alberta	965	371	1,996	1,393	1,847	16,345	3,997	7,153	0	33,520	582	1,369
British Columbia	315	187	1,873	984	2,137	12,776	2,884	2,803	20,769	0	947	485
Yukon	18	0	27	28	28	225	27	105	571	1,423	0	79
Northwest Territories	95	10	112	49	188	739	113	190	1,645	842	149	0
In	10,369	3,800	20,881	17,364	31,473	90,878	18,927	16,935	69,553	85,619	2,370	3,745
Out	11,373	3,622	21,358	15,313	39,006	97,468	27,837	33,576	69,538	46,160	2,531	4,132
Net Migration	-1,004	178	-477	2,051	-7,533	-6,590	0	0	15	39,459	-161	-387

Source: Statistics Canada, Demography Division, Estimates Section, March 1990.

Table 20. Net Migratory Balance of Ontario and British Columbia With the Other Provinces of Canada, 1989

Ontario		British Columbia	
Newfoundland	-703	Newfoundland	354
Prince Edward Island	-180	Prince Edward Island	35
Nova Scotia	-29	Nova Scotia	-41
New Brunswick	-254	New Brunswick	-83
Quebec	4,726	Quebec	1,877
Manitoba	2,168	Ontario	12,898
Saskatchewan	1,834	Manitoba	4,804
Alberta	-1,421	Saskatchewan	6,031
British Columbia	-12,898	Alberta	12,751
Yukon and Northwest Territories	167	Yukon and Northwest Territories	833
Total	-6,590	Total	39,459

Source: Statistics Canada, Demography Division, Estimates Section.

APPENDICES

Table A1. Demographic Accounts of the Provinces and Territories, 1971-1990
(in thousands)

Year	Popula- tion ¹	Total Growth ²	Births ²	Deaths ²	Natural Increase	Net Migration ³
Canada						
1971	21,465.0	244.6	362.2	157.3	204.9	39.7
1972	21,709.6	232.8	347.3	162.4	184.9	47.9
1973	21,942.4	292.9	343.4	164.0	179.3	113.5
1974	22,235.3	333.4	350.7	166.8	183.9	149.5
1975	22,568.7	315.2	359.3	167.4	191.9	123.3
1976	22,883.9	274.5	360.0	167.0	193.0	81.5
1977	23,158.4	259.0	361.4	167.5	193.9	65.1
1978	23,417.4	227.1	358.9	168.2	190.7	36.4
1979	23,644.5	267.4	366.1	168.2	197.9	69.5
1980	23,911.9	309.4	370.7	171.5	199.2	110.2
1981	24,221.3	262.1	371.3	171.0	200.3	61.8
1982	24,483.4	222.3	373.1	174.4	198.7	23.6
1983	24,705.7	190.1	373.7	174.5	199.2	-9.1
1984	24,895.8	194.6	377.0	175.7	201.3	-6.7
1985	25,090.4	183.6	375.7	181.3	194.4	-10.8
1986	25,274.0	218.9	372.9	184.2	188.7	30.2
1987	25,492.9	292.9	369.7	185.0	184.8	108.1
1988	25,785.8	311.5	376.8	190.0	186.8	124.7
1989	26,097.3	343.0	392.2	192.2	200.0	143.0
1990	26,440.3					
Newfoundland						
1971	519.0	8.8	12.8	3.2	9.6	-1.4
1972	527.2	7.2	12.9	3.3	9.5	-2.3
1973	534.4	5.4	11.9	3.4	8.5	-3.1
1974	539.8	6.6	11.5	3.3	8.2	-1.6
1975	546.4	8.4	11.2	3.2	8.0	0.4
1976	554.8	4.2	11.1	3.3	7.8	-3.6
1977	559.0	2.3	11.1	3.1	8.0	-5.7
1978	561.3	2.0	10.5	3.1	7.4	-5.4
1979	563.3	1.3	10.2	3.1	7.0	-5.7
1980	564.6	2.6	10.3	3.3	7.0	-4.4
1981	567.2	-1.2	10.1	3.2	6.9	-8.1
1982	566.0	3.9	9.2	3.4	5.8	-1.9
1983	569.9	2.0	8.9	3.5	5.4	-3.4
1984	571.9	-0.8	8.6	3.5	5.0	-5.8
1985	571.1	-2.4	8.5	3.6	4.9	-7.3
1986	568.7	-1.2	8.1	3.5	4.6	-5.8
1987	567.5	-0.8	7.8	3.6	4.1	-4.9
1988	567.4	2.3	7.5	3.6	3.9	-1.6
1989	569.7	2.9	6.4	3.7	2.7	0.2
1990	572.6					

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1971-1990
(in thousands) - Continued

Year	Popula- tion ¹	Total Growth ²	Births ²	Deaths ²	Natural Increase	Net Migration ³
Prince Edward Island						
1971	111.0	1.2	2.1	1.0	1.1	0.1
1972	112.2	1.4	2.0	1.1	1.0	0.4
1973	113.6	1.0	1.9	1.0	0.9	0.1
1974	114.6	2.0	1.9	1.1	0.9	1.1
1975	116.6	1.4	1.9	1.1	0.9	0.5
1976	118.0	1.0	1.9	1.1	0.8	0.2
1977	119.0	1.5	2.0	1.0	0.9	0.6
1978	120.5	1.1	2.0	1.0	1.0	0.1
1979	121.6	0.9	1.9	1.0	0.9	0.0
1980	122.5	-0.1	2.0	1.0	0.9	-1.0
1981	122.4	0.1	1.9	1.0	0.9	-0.8
1982	122.5	0.7	1.9	1.0	0.9	-0.2
1983	123.2	1.4	1.9	1.1	0.9	0.5
1984	124.6	1.2	2.0	1.1	0.8	0.4
1985	125.8	0.6	2.0	1.1	0.9	-0.3
1986	126.4	0.3	1.9	1.1	0.8	-0.5
1987	126.7	1.5	2.0	1.1	0.8	0.7
1988	128.0	1.5	2.0	1.1	0.9	0.6
1989	129.5	1.1	1.9	1.1	0.8	0.3
1990	130.6					
Nova Scotia						
1971	785.0	7.9	14.3	6.7	7.6	0.3
1972	792.9	8.5	13.5	6.9	6.6	1.9
1973	801.4	8.0	13.3	6.9	6.4	1.6
1974	809.4	7.3	12.9	6.9	6.0	1.3
1975	816.7	9.8	13.1	6.8	6.3	3.5
1976	826.5	5.7	12.8	7.0	5.8	-0.1
1977	832.2	3.6	12.4	7.0	5.4	-1.8
1978	835.8	4.4	12.5	6.9	5.7	-1.3
1979	840.2	3.5	12.4	6.8	5.6	-2.1
1980	843.7	3.2	12.4	7.0	5.4	-2.2
1981	846.9	2.1	12.1	7.0	5.1	-3.0
1982	849.0	5.6	12.3	6.9	5.4	0.2
1983	854.6	7.4	12.4	7.0	5.4	2.0
1984	862.0	6.9	12.4	6.9	5.5	1.4
1985	868.9	3.3	12.5	7.3	5.1	-1.8
1986	872.2	4.1	12.4	7.3	5.1	-1.0
1987	876.3	3.5	12.1	7.1	5.0	-1.5
1988	879.8	3.9	12.2	7.4	4.8	-0.9
1989	883.7	5.4	12.5	7.6	4.9	0.5
1990	889.1					

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1971-1990
(in thousands) - Continued

Year	Popula- tion ¹	Total Growth ²	Births ²	Deaths ²	Natural Increase	Net Migration ³
New Brunswick						
1971	630.0	8.2	12.2	4.9	7.2	1.0
1972	638.2	5.3	11.8	5.0	6.8	-1.5
1973	643.5	7.7	11.4	5.1	6.3	1.4
1974	651.2	9.5	11.4	5.2	6.2	3.3
1975	660.7	13.1	11.8	5.1	6.7	6.4
1976	673.8	7.9	11.8	5.2	6.6	1.3
1977	681.7	5.2	11.5	5.2	6.3	-1.1
1978	686.9	3.3	10.8	5.2	5.6	-2.3
1979	690.2	3.7	10.8	5.2	5.7	-2.0
1980	693.9	1.8	10.6	5.3	5.3	-3.5
1981	695.7	-0.4	10.5	5.1	5.4	-5.8
1982	695.3	5.2	10.5	5.2	5.3	-0.1
1983	700.5	5.3	10.5	5.2	5.3	0.0
1984	705.8	3.7	10.4	5.3	5.1	-1.4
1985	709.5	1.0	10.1	5.2	4.9	-3.9
1986	710.5	0.3	9.8	5.5	4.3	-4.0
1987	710.8	2.3	9.6	5.4	4.2	-1.9
1988	713.1	2.7	9.6	5.5	4.1	-1.4
1989	715.8	6.4	9.8	5.4	4.4	2.0
1990	722.2					
Quebec						
1971	6,017.0	22.7	89.2	40.7	48.5	-25.8
1972	6,039.7	24.7	83.6	42.3	41.3	-16.6
1973	6,064.4	38.7	84.1	42.7	41.4	-2.7
1974	6,103.1	52.5	89.4	42.8	46.6	5.9
1975	6,155.6	55.9	93.6	42.8	50.8	5.1
1976	6,211.5	51.5	96.3	42.6	53.7	-2.2
1977	6,263.0	22.6	95.7	43.5	52.2	-29.6
1978	6,285.6	30.6	94.9	43.6	51.3	-20.7
1979	6,316.2	43.7	98.6	43.3	55.3	-11.6
1980	6,359.9	53.0	97.4	43.5	53.9	-0.9
1981	6,412.9	37.4	95.3	42.7	52.6	-15.2
1982	6,450.3	14.8	90.8	43.5	47.3	-32.5
1983	6,465.1	15.4	88.2	44.3	43.9	-28.5
1984	6,480.5	22.0	87.8	44.4	43.4	-21.4
1985	6,502.5	25.5	86.3	45.7	40.6	-15.1
1986	6,528.0	40.4	84.6	46.9	37.7	2.7
1987	6,568.4	50.4	83.8	47.6	36.2	14.2
1988	6,618.8	52.8	86.6	47.8	38.8	14.0
1989	6,671.6	64.6	91.3	49.1	42.2	22.4
1990	6,736.2					

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1971-1990
(in thousands) - Continued

Year	Popula- tion ¹	Total Growth ²	Births ²	Deaths ²	Natural Increase	Net Migration ³
Ontario						
1971	7,656.0	113.3	130.4	56.6	73.8	39.5
1972	7,769.3	100.8	125.1	58.9	66.2	34.6
1973	7,870.1	126.3	123.8	59.9	63.9	62.4
1974	7,996.4	128.5	124.2	60.6	63.7	64.8
1975	8,124.9	103.9	125.8	60.5	65.3	38.6
1976	8,228.8	85.8	125.5	61.2	61.5	24.3
1977	8,314.6	93.3	122.8	61.4	61.3	32.0
1978	8,407.9	67.5	121.0	61.1	59.8	7.7
1979	8,475.4	64.4	121.7	61.5	60.2	4.2
1980	8,539.8	59.9	123.3	62.7	60.6	-0.7
1981	8,599.7	64.1	122.2	62.8	59.3	4.8
1982	8,663.8	97.4	124.9	63.7	61.2	36.2
1983	8,761.2	98.6	126.8	64.5	62.3	36.3
1984	8,859.8	109.4	131.3	64.7	66.6	42.8
1985	8,969.2	103.0	132.2	66.7	65.5	37.5
1986	9,072.2	129.0	133.9	67.9	66.0	63.0
1987	9,201.2	170.2	134.6	68.1	66.5	103.7
1988	9,371.4	151.3	138.1	70.7	67.4	83.9
1989	9,522.7	144.9	146.8	71.2	75.6	69.3
1990	9,667.6					
Manitoba						
1971	984.0	5.0	18.0	8.0	10.0	-5.0
1972	989.0	3.3	17.4	8.2	9.2	-5.9
1973	992.3	9.8	17.0	8.2	8.8	1.0
1974	1,002.1	7.7	17.3	8.4	8.9	-1.2
1975	1,009.8	8.4	17.1	8.4	8.8	-0.4
1976	1,018.2	6.2	16.7	8.3	8.4	-2.5
1977	1,024.4	5.8	16.7	8.2	8.5	-2.7
1978	1,030.2	-2.4	16.4	8.3	8.1	-10.5
1979	1,027.8	-4.8	16.2	8.2	8.0	-12.8
1980	1,023.0	0.4	16.0	8.4	7.6	-7.2
1981	1,023.4	6.0	16.1	8.6	7.4	-1.4
1982	1,029.4	11.4	16.1	8.5	7.6	3.8
1983	1,040.8	10.1	16.6	8.5	8.1	2.0
1984	1,050.9	9.7	16.7	8.3	8.4	1.3
1985	1,060.6	7.4	17.1	8.8	8.3	-0.9
1986	1,068.0	6.6	17.0	8.9	8.1	-1.5
1987	1,074.6	6.5	17.0	8.7	8.2	-1.7
1988	1,081.1	1.9	17.0	9.1	7.9	-6.0
1989	1,083.0	3.6	17.8	8.9	8.9	-5.3
1990	1,086.6					

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1971-1990
(in thousands) - Continued

Year	Popula- tion ¹	Total Growth ²	Births ²	Deaths ²	Natural Increase	Net Migration ³
Saskatchewan						
1971	927.0	-9.9	16.1	7.4	8.6	-18.5
1972	917.1	-10.5	15.5	7.6	7.9	-18.4
1973	906.6	-6.7	14.8	7.6	7.2	-13.9
1974	899.9	2.4	15.1	7.8	7.3	-4.9
1975	902.3	14.4	15.3	7.7	7.6	6.8
1976	916.7	12.9	16.0	7.7	8.3	4.8
1977	929.6	11.1	16.5	7.6	9.0	2.1
1978	940.7	6.3	16.6	7.7	8.8	-2.5
1979	947.0	8.5	16.9	7.4	9.6	-1.1
1980	955.5	8.6	17.1	7.7	9.4	-0.8
1981	964.1	9.8	17.2	7.5	9.7	0.1
1982	973.9	10.5	17.7	8.2	9.5	1.0
1983	984.4	11.4	17.8	7.6	10.2	1.2
1984	995.8	10.2	18.0	7.7	10.3	-0.1
1985	1,006.0	3.8	18.2	8.0	10.1	-6.3
1986	1,009.8	2.7	17.5	8.1	9.5	-6.8
1987	1,012.5	1.4	17.0	7.8	9.2	-7.8
1988	1,013.9	-6.1	16.8	8.1	8.7	-14.8
1989	1,007.8	-6.2	16.6	7.9	8.7	-14.9
1990	1,001.6					
Alberta						
1971	1,616.0	28.7	30.5	10.5	20.0	8.7
1972	1,644.7	32.3	29.3	10.7	18.6	13.7
1973	1,677.0	32.1	29.3	10.8	18.5	13.6
1974	1,709.1	46.6	29.8	11.3	18.6	28.0
1975	1,755.7	58.7	31.6	11.4	20.2	38.5
1976	1,814.4	70.6	33.1	11.6	21.5	49.3
1977	1,885.0	70.9	34.4	11.6	22.8	48.1
1978	1,955.9	68.5	35.4	11.9	23.5	45.0
1979	2,024.4	81.2	37.0	12.1	24.9	56.3
1980	2,105.6	98.0	39.7	12.7	27.0	71.0
1981	2,203.6	85.3	42.6	12.8	29.8	55.5
1982	2,288.9	42.8	45.0	13.0	32.1	10.7
1983	2,331.7	6.3	45.6	12.6	33.0	-26.7
1984	2,338.0	1.2	44.1	12.7	31.4	-30.2
1985	2,339.2	19.9	43.8	13.2	30.6	-10.7
1986	2,359.1	11.4	43.7	13.6	30.2	-18.8
1987	2,370.5	6.5	42.1	13.3	28.8	-22.3
1988	2,377.0	31.9	42.1	13.9	28.2	3.7
1989	2,408.9	40.0	43.4	14.0	29.4	10.6
1990	2,448.9					

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1971-1990
(in thousands) - Continued

Year	Popula- tion ¹	Total Growth ²	Births ²	Deaths ²	Natural Increase	Net Migration ³
British Columbia						
1971	2,168.0	55.6	34.9	17.8	17.1	38.5
1972	2,223.6	56.6	34.6	18.0	16.5	40.1
1973	2,280.2	69.6	34.4	18.1	16.3	53.3
1974	2,349.8	68.5	35.5	19.2	16.3	52.2
1975	2,418.3	38.8	36.3	19.1	17.2	21.6
1976	2,457.1	28.4	35.8	18.9	16.9	11.4
1977	2,485.5	41.6	36.7	18.6	18.1	24.2
1978	2,527.1	45.0	37.2	19.1	18.2	26.8
1979	2,572.1	64.3	38.4	19.2	19.2	45.1
1980	2,636.4	81.3	40.1	19.4	20.7	60.6
1981	2,717.7	56.4	41.5	19.9	21.6	34.8
1982	2,774.1	28.6	42.7	20.7	22.0	6.6
1983	2,802.7	31.1	42.9	19.8	23.1	8.0
1984	2,833.8	29.2	43.9	20.7	23.2	6.0
1985	2,863.0	20.4	43.1	21.3	21.8	-1.4
1986	2,883.4	25.3	42.0	21.2	20.8	4.5
1987	2,908.7	50.2	41.8	21.8	20.0	32.2
1988	2,958.9	67.5	42.9	22.5	20.4	47.1
1989	3,026.4	79.3	43.8	23.1	20.7	58.6
1990	3,105.7					
Yukon						
1971	18.0	1.2	0.5	0.1	0.4	0.8
1972	19.2	1.0	0.5	0.1	0.3	0.7
1973	20.2	0.3	0.4	0.1	0.3	0.0
1974	20.5	0.6	0.5	0.1	0.4	0.2
1975	21.1	0.7	0.4	0.1	0.3	0.4
1976	21.8	0.1	0.4	0.1	0.3	-0.2
1977	21.9	0.5	0.4	0.1	0.3	0.2
1978	22.4	0.2	0.4	0.1	0.4	-0.2
1979	22.6	0.0	0.5	0.1	0.4	-0.4
1980	22.6	0.1	0.5	0.1	0.3	-0.2
1981	22.7	0.9	0.5	0.1	0.4	0.5
1982	23.6	-0.6	0.5	0.1	0.4	-1.0
1983	23.0	-0.1	0.5	0.1	0.4	-0.5
1984	22.9	0.5	0.5	0.1	0.4	0.1
1985	23.4	0.1	0.5	0.1	0.3	-0.2
1986	23.5	0.7	0.5	0.1	0.4	0.3
1987	24.2	0.5	0.5	0.1	0.4	0.3
1988	24.7	0.8	0.5	0.1	0.4	0.4
1989	25.5	0.3	0.5	0.1	0.4	-0.1
1990	25.8					

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1971-1990
(in thousands) - Concluded

Year	Popula- lation ¹	Total Growth ²	Births ²	Deaths ²	Natural Increase	Net Migration ³
Northwest Territories						
1971	34.0	2.5	1.3	0.2	1.1	1.4
1972	36.5	2.2	1.2	0.3	1.0	1.2
1973	38.7	0.7	1.2	0.2	1.0	-0.3
1974	39.4	1.2	1.0	0.2	0.8	0.4
1975	40.6	1.7	1.2	0.2	1.0	0.7
1976	42.3	0.4	1.2	0.2	1.0	-0.6
1977	42.7	0.4	1.2	0.2	1.0	-0.6
1978	43.1	0.5	1.2	0.2	1.0	-0.5
1979	43.6	0.7	1.3	0.2	1.1	-0.4
1980	44.3	0.7	1.3	0.2	1.1	-0.4
1981	45.0	1.6	1.3	0.2	1.1	0.5
1982	46.6	1.9	1.4	0.2	1.1	0.8
1983	48.5	1.3	1.5	0.2	1.3	0.0
1984	49.8	1.5	1.4	0.2	1.2	0.3
1985	51.3	0.8	1.4	0.2	1.2	-0.4
1986	52.1	-0.5	1.5	0.2	1.3	-1.8
1987	51.6	0.2	1.5	0.2	1.3	-1.1
1988	51.8	0.8	1.6	0.2	1.4	-0.6
1989	52.6	0.9	1.2	0.2	1.0	-0.1
1990	53.5					

¹ As of January 1. Data are taken from definitive intercensal estimates for 1971-1986, and from definitive postcensal estimates for 1987 and 1988. Those for 1989 are revised and those for 1990 are preliminary.

² From January 1 to December 31.

³ Difference between total growth and natural increase.

Note: All calculations are based on unrounded data.

Source: For births and deaths: Statistics Canada, Centre for Health Information.

For immigration: Employment and Immigration.

For population estimates and emigration data: Statistics Canada, Demography Division, Catalogue No. 91-001, Vol. 2 and Catalogue No. 91-002, Vol. 4, No. 1.

Table A2. NUPTIALITY

	Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Can.
Marriages	1978	3,841	939	6,560	5,310	45,936	67,491	8,232	7,139	18,277	21,388	194	216	185,523
	1979	3,737	893	6,920	5,355	46,341	67,980	7,769	7,272	18,999	22,087	181	277	187,811
	1980	3,783	939	6,791	5,321	44,848	68,840	7,869	7,561	20,818	23,830	200	269	191,069
	1981	3,758	849	6,632	5,108	41,005	70,281	8,123	7,329	21,781	24,699	235	282	190,082
	1982	3,764	855	6,486	4,923	38,354	71,595	8,264	7,491	23,312	23,831	225	260	188,360
	1983	3,778	937	6,505	5,260	36,144	70,893	8,261	7,504	21,172	23,692	243	286	184,675
	1984	3,567	1,057	6,798	5,294	37,433	71,922	8,393	7,213	20,052	23,397	212	259	185,597
	1985	3,220	956	6,807	5,312	37,026	72,891	8,296	7,132	19,750	22,292	185	229	184,096
	1986	3,421	970	6,445	4,962	33,083	70,839	7,816	6,820	18,896	21,826	183	257	175,518
	1987	3,481	924	6,697	4,924	32,616	76,201	7,994	6,853	18,640	23,395	189	237	182,151
	1988	3,686	965	6,894	5,292	33,519	78,533	7,908	6,767	19,272	24,461	209	222	187,728
	1989 ¹	3,808	1,019	6,790	5,248	33,332	80,357	7,800	6,637	19,888	25,150	215	213	190,457

¹ Preliminary data.

Source: Statistics Canada, Vital Statistics, *Marriages and Divorces*, Catalogue No. 84-205 (Annual).

Table A3. FERTILITY

	Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Can.
Live births	1978	10,480	1,985	12,548	10,790	94,860	120,964	16,397	16,550	35,396	37,231	447	1,204	358,852
	1979	10,170	1,934	12,406	10,848	98,646	121,655	16,242	16,944	37,003	38,432	501	1,283	366,064
	1980	10,332	1,958	12,369	10,636	97,421	123,316	15,989	17,057	39,749	40,104	476	1,302	370,709
	1981	10,130	1,897	12,079	10,503	95,322	122,183	16,073	17,209	42,638	41,474	536	1,302	371,346
	1982	9,173	1,924	12,325	10,489	90,800	124,856	16,123	17,722	45,036	42,747	525	1,362	373,082
	1983	8,929	1,907	12,401	10,518	88,154	126,826	16,602	17,847	45,555	42,919	540	1,491	373,689
	1984	8,560	1,954	12,378	10,360	87,839	131,296	16,651	18,014	44,105	43,911	519	1,444	377,031
	1985	8,500	2,008	12,450	10,121	86,340	132,208	17,097	18,162	43,813	43,127	464	1,437	375,727
	1986	8,100	1,928	12,358	9,788	84,634	133,882	17,009	17,513	43,744	41,967	483	1,507	372,912
	1987	7,769	1,955	12,110	9,588	83,791	134,617	16,953	17,034	42,110	41,814	478	1,523	369,742
Birth rate (per 1,000)	1988	7,487	1,977	12,182	9,617	86,612	138,066	17,030	16,763	42,055	42,930	521	1,555	376,795
	1989 ¹	7,762	1,919	12,510	9,788	91,315	146,819	17,817	16,593	43,402	43,817	497	1,159	393,398
	1978	18.7	16.4	15.0	15.7	15.1	14.3	15.9	17.5	17.8	14.6	19.9	27.6	15.3
	1979	18.0	15.8	14.7	15.7	15.6	14.3	15.8	17.8	18.0	14.8	22.5	29.1	15.4
	1980	18.3	15.9	14.6	15.3	15.3	14.4	15.6	17.8	18.6	15.0	21.3	29.2	15.4
	1981	17.8	15.5	14.3	15.1	14.8	14.2	15.7	17.8	19.1	15.1	23.2	28.5	15.3
	1982	16.2	15.7	14.5	15.1	14.1	14.3	15.6	18.1	19.5	15.3	22.0	28.7	15.2
	1983	15.6	15.4	14.5	15.0	13.6	14.4	15.9	18.0	19.5	15.3	23.6	30.6	15.1
	1984	15.0	15.6	14.3	14.6	13.5	14.7	15.8	18.0	18.9	15.4	22.5	28.8	15.1
	1985	14.9	15.9	14.3	14.3	13.3	14.7	16.1	18.0	18.7	15.0	19.8	27.7	14.9
Fertility rate by age group ² (per 1,000 women)	1986	14.3	15.2	14.2	13.8	12.9	14.7	15.9	17.3	18.4	14.5	20.5	28.9	14.7
	1987	13.7	15.4	13.8	13.5	12.7	14.5	15.7	16.8	17.7	14.3	19.5	29.3	14.4
	1988	13.2	15.4	13.8	13.5	13.0	14.6	15.7	16.5	17.6	14.4	20.6	29.8	14.5
	1989 ³	13.6	14.8	14.1	13.6	13.6	15.3	16.4	16.5	17.9	14.4	19.7	21.7	15.0
	1978: 15-19	-	44.2	44.2	42.7	17.4	28.1	42.8	54.3	41.9	30.2	60.9	114.2	29.7
	20-24	-	118.9	109.5	118.3	93.9	96.4	110.3	148.2	123.6	104.4	112.5	154.3	103.1
	25-29	-	136.2	119.6	123.1	134.4	122.4	132.3	144.5	135.7	121.5	120.8	162.0	128.1
	30-34	-	76.6	58.6	54.0	68.9	66.4	70.0	67.8	71.0	65.3	80.9	108.0	67.1
	35-39	-	27.1	17.2	14.3	19.6	18.9	22.3	20.3	19.6	18.3	26.7	49.2	19.5
	40-44	-	4.8	3.5	3.5	3.5	3.3	4.8	4.7	3.9	3.1	4.0	17.0	3.6

Table A3. FERTILITY - Concluded

	Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Can.
Fertility rate by birth order (per 1,000 women ages 15-44) ²	1988: 15-19	-	29.5	30.0	23.3	16.4	20.1	38.3	43.9	34.4	23.2	43.0	136.5	23.7
	20-24	-	97.2	87.1	89.4	77.3	75.2	98.7	122.4	100.2	85.8	118.6	178.5	83.4
	25-29	-	138.2	114.9	120.6	119.4	124.5	132.8	144.9	134.3	123.8	135.3	152.4	124.9
	30-34	-	79.4	67.5	63.6	64.8	85.5	81.3	77.9	85.7	83.2	97.6	107.4	78.0
	35-39	-	26.3	21.0	17.6	18.7	28.9	25.7	22.7	27.1	29.1	32.1	38.2	25.1
	40-44	-	2.1	2.6	2.9	2.9	3.9	4.3	2.9	4.2	4.2	4.1	15.5	3.6
	1978: Order 1	-	26.9	27.0	27.0	25.5	24.5	26.5	29.6	29.2	27.0	32.5	42.4	25.4
	Order 2	-	22.5	20.0	22.2	19.4	19.5	21.4	24.9	22.4	19.0	25.2	26.6	19.6
	Order 3	-	11.2	8.5	9.1	7.2	7.5	9.9	12.1	9.8	7.6	8.6	15.9	7.8
	Order 4 +	-	7.7	4.4	4.5	2.8	3.3	6.4	7.9	5.5	3.2	3.9	24.6	3.7
Total fertility rate (women 15-44 years of age) ²	1988: Order 1	-	24.2	22.9	22.5	23.0	24.0	24.7	24.4	25.5	23.6	30.7	38.1	23.3
	Order 2	-	19.4	18.0	18.1	17.0	19.5	20.3	22.4	22.3	19.5	25.3	29.9	18.8
	Order 3	-	10.4	7.6	7.1	5.6	8.1	10.1	12.7	10.5	8.6	10.3	18.9	7.8
	Order 4 +	-	6.1	3.1	2.6	2.0	3.1	6.2	8.0	5.7	3.6	4.5	22.0	3.4
	1978	-	2.1	1.8	1.8	1.7	1.7	1.9	2.2	2.0	1.7	2.0	3.1	1.7
	1979	-	2.0	1.7	1.8	1.7	1.7	1.9	2.3	2.0	1.7	2.1	3.2	1.7
	1980	-	2.0	1.7	1.7	1.7	1.7	1.9	2.2	2.0	1.7	2.0	3.2	1.7
	1981	-	1.9	1.6	1.7	1.6	1.6	1.9	2.1	1.9	1.7	2.1	3.0	1.7
	1982	-	1.9	1.7	1.7	1.5	1.7	1.8	2.2	1.8	1.7	2.0	3.0	1.7
	1983	-	1.8	1.7	1.7	1.5	1.7	1.9	2.1	1.9	1.7	2.2	3.2	1.7
Preliminary data, Vital Statistics.	1984	-	1.9	1.6	1.7	1.5	1.7	1.9	2.1	1.9	1.8	2.2	3.0	1.7
	1985	-	1.9	1.6	1.6	1.5	1.7	1.9	2.1	1.9	1.7	1.9	2.8	1.7
	1986	-	1.9	1.6	1.6	1.4	1.7	1.9	2.1	1.9	1.7	2.0	3.0	1.7
	1987	-	1.9	1.6	1.6	1.4	1.7	1.9	2.0	1.9	1.7	2.0	3.1	1.7
	1988	-	1.9	1.6	1.6	1.5	1.7	1.9	2.1	1.9	1.8	2.2	3.1	1.7
		-												

¹ Preliminary data, Vital Statistics, July, 1990.

² Preliminary data, Vital Statistics.

³ Preliminary data, Vital Statistics.

Source: Statistics Canada, Vital Statistics, *Births and Deaths*, Catalogue No. 84-204 (Annual).

Table A4. DIVORCE

	Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Can.
Divorces	1978	427	135	1,960	1,153	14,865	20,534	2,187	1,428	6,059	8,265	65	77	57,155
	1979	483	144	2,275	1,223	14,379	21,793	2,152	1,528	6,531	8,826	62	78	59,474
	1980	555	163	2,314	1,326	13,899	22,442	2,282	1,836	7,580	9,464	82	76	62,019
	1981	569	187	2,285	1,334	19,193	21,680	2,399	1,932	8,418	9,533	75	66	67,671
	1982	625	206	2,281	1,663	18,579	23,644	2,392	1,815	8,882	10,165	117	67	70,436
	1983	711	215	2,340	1,942	17,365	23,073	2,642	2,000	8,758	9,348	88	85	68,567
	1984	590	195	2,264	1,427	16,845	21,636	2,611	1,988	8,454	8,988	100	74	65,172
	1985	561	213	2,337	1,360	15,814	20,854	2,314	1,927	8,102	8,330	96	72	61,980
	1986	610	191	2,550	1,700	18,399	28,653	2,917	2,395	9,386	11,176	89	94	78,160
	1987	1,002	246	2,640	1,952	19,315	38,223	3,771	2,751	9,170	11,697	113	105	90,985
Average Duration of Marriage for Divorced Persons	1988	884	260	2,478	1,665	19,825	29,873	2,998	2,463	8,644	10,591	81	110	79,872
	1978	12.5	12.5	12.3	12.6	13.3	12.4	12.0	12.5	10.7	11.8	11.2	11.0	12.4
	1979	12.7	12.0	12.1	12.6	12.9	12.3	11.9	12.4	10.4	11.8	10.8	10.2	12.1
	1980	12.5	13.1	12.0	12.4	12.8	12.3	11.6	12.2	10.3	11.6	11.6	12.0	12.0
	1981	12.4	13.3	12.0	12.8	12.9	12.4	12.0	11.8	10.3	11.6	11.5	9.9	12.1
	1982	12.8	12.8	11.8	12.7	12.7	12.3	12.0	11.9	10.2	11.8	11.4	11.5	12.0
	1983	12.0	13.3	12.0	12.6	12.5	12.5	11.8	11.6	10.3	11.8	11.7	10.7	12.0
	1984	12.6	13.8	12.4	13.5	12.8	12.6	12.1	12.0	10.5	12.5	11.9	10.3	12.4
	1985	12.7	13.6	12.4	13.2	13.1	12.8	11.8	12.2	10.7	12.4	11.3	10.8	12.5
	1986	13.4	14.0	12.4	13.2	13.3	12.7	12.2	12.1	10.5	12.3	10.6	11.6	12.5
	1987	12.7	12.9	12.4	13.2	13.5	12.4	11.9	11.7	10.7	12.1	11.1	10.7	12.4
	1988	13.1	12.8	12.2	13.5	13.3	12.5	11.9	12.2	10.9	12.1	12.2	10.6	12.5

Source: Statistics Canada, Vital Statistics, *Marriage and Divorces*, Vol. II, Catalogue 84-205.

Table A5. MORTALITY

	Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Can.
Deaths	1978	3,115	994	6,877	5,183	43,552	61,116	8,297	7,749	11,944	19,058	89	205	168,179
	1979	3,136	1,022	6,843	5,172	43,311	61,468	8,217	7,369	12,109	19,204	127	205	168,183
	1980	3,345	1,035	7,004	5,297	43,512	62,746	8,436	7,651	12,710	19,371	128	238	171,473
	1981	3,230	992	6,958	5,139	42,684	62,838	8,648	7,523	12,823	19,857	141	196	171,029
	1982	3,385	980	6,941	5,197	43,497	63,696	8,490	8,202	12,968	20,707	118	232	174,413
	1983	3,498	1,050	7,047	5,206	44,275	64,507	8,521	7,611	12,588	19,827	113	241	174,484
	1984	3,520	1,109	6,913	5,272	44,449	64,703	8,290	7,710	12,730	20,686	108	237	175,727
	1985	3,557	1,110	7,315	5,230	45,707	66,747	8,756	8,031	13,231	21,302	123	214	181,323
	1986	3,540	1,121	7,255	5,458	46,892	67,865	8,911	8,061	13,560	21,213	113	235	184,224
	1987	3,629	1,116	7,112	5,408	47,616	68,119	8,710	7,808	13,316	21,814	108	197	184,953
	1988	3,591	1,112	7,412	5,450	47,771	70,679	9,100	8,100	13,894	22,546	136	220	190,011
	1989 ¹	3,679	1,051	7,583	5,442	49,102	71,222	8,889	7,884	13,994	23,075	96	207	192,224
	1978	128	15	149	127	1,126	1,373	225	236	405	472	5	28	4,289
	1979	109	21	148	124	1,040	1,247	211	194	423	434	8	35	3,994
Deaths of infants at less than one year	1980	110	22	135	116	953	1,175	184	193	500	442	9	29	3,868
	1981	98	25	139	114	807	1,073	191	203	452	424	8	28	3,562
	1982	99	15	106	110	800	1,041	146	186	442	423	11	22	3,401
	1983	95	16	116	112	676	1,013	173	180	383	377	10	31	3,182
	1984	79	16	97	81	645	992	144	169	425	378	7	25	3,058
	1985	92	8	98	97	626	961	170	200	352	349	5	24	2,982
	1986	65	13	104	81	604	969	157	157	393	355	12	28	2,938
	1987	59	13	90	67	594	888	142	155	315	359	5	19	2,706
	1988	70	14	79	69	563	910	132	140	347	362	3	16	2,705
	1978	128	15	149	127	1,126	1,373	225	236	405	472	5	28	4,289
	1979	109	21	148	124	1,040	1,247	211	194	423	434	8	35	3,994
	1980	110	22	135	116	953	1,175	184	193	500	442	9	29	3,868
	1981	98	25	139	114	807	1,073	191	203	452	424	8	28	3,562
	1982	99	15	106	110	800	1,041	146	186	442	423	11	22	3,401

See notes at the end of this table.

Table A5. MORTALITY – Concluded

	Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Can.
Mortality Rate (per 1,000) ²	1978	5.5	8.2	8.2	7.5	6.9	7.2	8.0	8.2	6.0	7.5	4.0	4.7	7.2
	1979	5.6	8.4	8.1	7.5	6.8	7.2	8.0	7.7	5.9	7.4	5.7	4.7	7.1
	1980	5.9	8.4	8.3	7.6	6.8	7.3	8.2	8.0	5.9	7.3	5.7	5.3	7.1
	1981	5.7	8.1	8.2	7.4	6.6	7.3	8.4	7.8	5.7	7.2	6.1	4.3	7.0
	1982	6.0	8.0	8.2	7.5	6.7	7.3	8.2	8.4	5.6	7.4	4.9	4.9	7.1
	1983	6.1	8.5	8.2	7.4	6.8	7.3	8.1	7.7	5.4	7.0	4.9	4.9	7.0
	1984	6.2	8.9	8.0	7.4	6.8	7.3	7.9	7.7	5.4	7.3	4.7	4.7	7.0
	1985	6.2	8.8	8.4	7.4	7.0	7.4	8.2	8.0	5.6	7.4	5.2	4.1	7.2
	1986	6.2	8.9	8.3	7.7	7.2	7.4	8.3	8.0	5.7	7.3	4.8	4.5	7.3
	1987	6.4	8.8	8.1	7.6	7.2	7.4	8.1	7.7	5.6	7.5	4.4	3.8	7.2
Infant Mortality Rate	1988	6.3	8.7	8.4	7.6	7.2	7.5	8.4	8.0	5.8	7.6	5.4	4.2	7.3
	1989 ³	6.4	8.1	8.6	7.6	7.3	7.4	8.2	7.8	5.8	7.6	3.8	3.9	7.3
	1978	12.2	7.6	11.9	11.8	11.9	11.3	13.7	14.3	11.4	12.7	11.2	23.3	12.0
	1979	10.7	10.9	11.9	11.4	10.5	10.3	13.0	11.4	11.4	11.3	16.0	27.3	10.9
	1980	10.6	11.2	10.9	10.9	9.8	9.5	11.5	11.3	12.6	11.0	18.9	22.3	10.4
	1981	9.7	13.2	11.5	10.9	8.5	8.8	11.9	11.8	10.6	10.2	14.9	21.5	9.6
	1982	10.8	7.8	8.6	10.5	8.8	8.3	9.1	10.5	9.8	9.9	21.0	16.2	9.1
	1983	10.6	8.4	9.4	10.6	7.7	8.0	10.4	10.1	8.4	8.8	18.5	20.8	8.5
	1984	9.2	8.2	7.8	7.8	7.3	7.6	8.6	9.4	9.6	8.6	13.5	17.3	8.1
	1985	10.8	4.0	7.9	9.6	7.2	7.3	9.9	11.0	8.0	8.1	10.8	16.7	8.0
Life Expectancy at Birth	1986	8.0	6.7	8.4	8.3	7.1	7.2	9.2	9.0	9.0	8.5	24.8	18.6	7.9
	1987	7.6	6.6	7.4	7.0	7.1	6.6	8.4	9.1	7.5	8.6	10.5	12.5	7.3
	1988	9.3	9.1	6.5	7.2	6.5	6.6	7.8	8.4	8.3	8.4	5.8	10.3	7.2
	1981 H	72.0	72.8	71.0	71.1	71.1	72.3	72.2	72.4	72.0	72.6	-	-	71.9
	F	78.7	80.5	78.4	79.2	78.7	79.0	78.8	79.6	79.1	79.6	-	-	79.0
	1986 H	72.7	72.6	72.3	72.5	72.0	73.5	73.0	73.7	73.6	74.1	-	-	73.0
	F	79.4	80.4	79.2	80.0	79.4	79.7	79.8	80.5	80.0	80.3	-	-	79.7
	1988 H	73.3	73.3	72.6	72.9	72.5	73.9	73.2	74.0	74.0	74.3	-	-	73.4
	F	79.4	81.0	79.7	80.5	80.0	80.2	80.2	80.9	80.5	80.7	-	-	80.2

¹ Preliminary data, Vital Statistics, 25 July 1990.

² Calculations were done in the Demography Division based on final population estimates as of June 1 and on vital statistics.

Source: Statistics Canada, Vital Statistics, *Births and Deaths*, Catalogue 84-204 (Annual).

Table A6. Canadian Population as of January 1989, by Single Years of Age and Sex

Age	1988		1989	
	Males	Females	Males	Females
0	188,100	179,700	191,500	182,700
1	188,500	180,000	189,200	180,800
2	187,500	178,000	189,300	180,800
3	187,100	177,500	188,400	178,800
4	186,500	177,800	188,100	178,400
5	186,600	177,700	187,500	178,800
6	187,000	178,300	187,600	178,700
7	188,200	179,000	188,000	179,200
8	186,700	177,200	189,200	180,000
9	183,400	174,100	187,800	178,200
10	183,100	174,100	184,400	175,000
11	184,600	175,500	184,100	175,000
12	185,100	175,700	185,600	176,400
13	183,100	174,300	186,000	176,600
14	181,600	172,900	184,100	175,200
15	186,700	176,600	182,500	173,800
16	194,600	184,300	187,600	177,500
17	201,400	191,000	195,500	185,200
18	198,900	188,100	202,200	192,000
19	195,500	186,400	199,800	189,200
20	196,600	189,800	196,500	187,700
21	204,200	198,900	197,700	191,300
22	217,300	213,400	205,400	200,400
23	229,600	226,900	218,400	214,900
24	234,800	233,500	230,800	228,400
25	235,800	236,300	236,000	235,100
26	236,700	237,700	237,100	238,000
27	238,900	239,800	238,000	239,400
28	235,900	237,900	240,300	241,500
29	233,700	236,500	237,300	239,600
30	233,100	236,100	235,100	238,100
31	229,600	232,700	234,500	237,800
32	226,100	229,300	231,000	234,300
33	223,600	227,700	227,400	230,700
34	216,800	221,300	224,700	229,000
35	210,300	213,700	217,700	222,500
36	206,000	208,100	211,200	214,800
37	203,700	205,000	206,800	209,000
38	201,100	202,600	204,400	205,900
39	200,800	202,300	201,700	203,300
40	202,900	203,300	201,300	202,900
41	192,200	192,100	203,300	203,900
42	171,200	170,100	192,500	192,500
43	164,600	163,000	171,300	170,300
44	161,200	160,100	164,600	163,100
45	153,900	153,000	161,200	160,300

See notes at the end of this table.

Table A6. Canadian Population as of January 1989, by Single Years of Age and Sex - Concluded

Age	1988		1989	
	Males	Females	Males	Females
46	144,900	144,200	153,800	153,100
47	138,700	138,600	144,800	144,200
48	133,200	132,800	138,500	138,700
49	129,500	128,600	133,000	132,800
50	125,300	124,900	129,200	128,600
51	123,900	124,000	125,000	124,900
52	123,000	123,500	123,500	124,000
53	120,200	120,600	122,500	123,400
54	121,000	121,000	119,600	120,500
55	123,400	123,500	120,300	120,900
56	122,900	123,700	122,600	123,300
57	121,800	124,000	122,000	123,400
58	118,500	121,900	120,800	123,700
59	115,000	120,000	117,300	121,500
60	113,500	120,100	113,700	119,500
61	110,800	119,900	112,100	119,600
62	108,400	120,200	109,300	119,200
63	105,100	118,600	106,700	119,500
64	101,400	116,500	103,300	117,700
65	99,000	115,400	99,500	115,600
66	96,600	114,300	96,900	114,300
67	91,300	109,700	94,300	113,100
68	82,700	100,900	89,000	108,400
69	73,400	91,000	80,400	99,600
70	70,500	88,200	71,000	89,500
71	68,300	86,900	67,900	86,700
72	67,000	86,000	65,500	85,200
73	64,500	84,300	64,100	84,100
74	59,500	79,300	61,500	82,300
75	54,000	73,500	56,500	77,200
76	48,700	68,400	51,100	71,400
77	44,500	64,000	45,700	66,100
78	40,100	58,900	41,500	61,600
79	35,600	54,500	37,100	56,400
80	31,500	50,000	32,700	51,900
81	27,500	45,600	28,800	47,400
82	24,100	41,600	24,900	43,000
83	21,000	37,300	21,600	38,900
84	18,200	33,100	18,600	34,600
85	15,400	28,900	16,000	30,500
86	12,700	25,300	13,400	26,300
87	10,300	22,200	10,900	22,800
88	8,200	18,600	8,700	19,800
89	6,400	15,400	6,800	16,200
90 +	21,200	59,000	21,100	60,700

Source: Statistics Canada, Demography Division, Estimates Section.

INTRODUCTION

Canada and the United States were founded at the same time (Québec City was established in 1608 and New York City¹ was established in 1626) on land already settled by people we now designate as aboriginal groups. The two countries have grown together, drawing increasingly diverse populations to similar geographical settings. History has given distinct institutions, political systems and cultural values to each country. Yet crossings over the 49th parallel have always been voluminous, and national identities have merged into modern standards of behaviour throughout the Western world. In spite of their cultural distinctions, many likenesses have evolved between the two nations. What are the major similarities and differences that characterize the two nations today?

Even if for many reasons the United States now sustains a population ten times the size of Canada's, a succinct comparison of demographic behaviour almost four centuries later is of great interest.

An in-depth analysis is beyond the scope of this publication. The reader will understand that only an inquiry into the most fundamental demographic change and the most striking characteristics can be considered. The larger the population and the more vast the land, the more will diversity prevail over homogeneity. But the use of general demographic measures and statistical indices at the national level does not lend itself to accurate portrayals of any subpopulation. It is nevertheless interesting to see where the differences lie and to note their order of size.

RECENT EVOLUTION OF THE CANADIAN AND AMERICAN POPULATIONS

Racial Composition

The American population had grown to about 76 million persons by the turn of the twentieth century (Table 1). Non-white² persons accounted for 12.1% of this count, and among them, black persons accounted for the great majority (87%). These proportions had hardly changed by the end of World War II, fifty years later. The population had almost doubled to 151,100,000,

¹ It was then known as New Amsterdam.

² Individuals may be classified by ethnicity, place of birth, language or any other criteria needed for analysis. The demographic behaviour of racial subgroups has never been systematically measured in Canada. The United States, by contrast, has always calculated and published demographic numbers, rates and indices for at least three subpopulations in their society: white persons, black persons, and the more general category of "non-white" persons. The Canadian population is compared with the white American population on the basis of this classification. Wherever possible, a comparison between the Canadian population and the American white population is performed.

Table 1. Growth of the Canadian Population and the American Population by Race, 1900-1988

Year	United States							Canada
	Whites	%	Blacks	%	Others	%	Total	
1900	66,809,000	87.9	8,835,400	11.6	351,000	0.5	75,995,000	5,301,000
1910	81,732,000	88.9	9,828,000	10.7	413,000	0.4	91,977,000	6,988,000
1920	94,821,000	89.7	10,463,000	9.9	427,000	0.4	105,711,000	8,556,000
1930	110,287,000	89.8	11,891,000	9.7	597,000	0.5	122,775,000	10,208,000
1940	118,215,000	90.0	12,566,000	9.6	589,000	0.4	131,369,000	11,381,000
1950	134,942,000	89.5	15,042,000	10.0	713,000	0.5	150,697,000	13,712,000
1960	158,455,000	88.8	18,860,000	10.6	1,149,000	0.6	178,464,000	17,870,000
1970	177,749,000	87.5	22,580,000	11.1	2,883,000		203,212,000	21,297,000
1980	195,571,000	85.9	26,903,000	11.8	5,283,000		227,757,000	24,043,000
1988	206,187,000	84.5	29,856,000	12.2	7,872,000		243,915,000	25,909,000

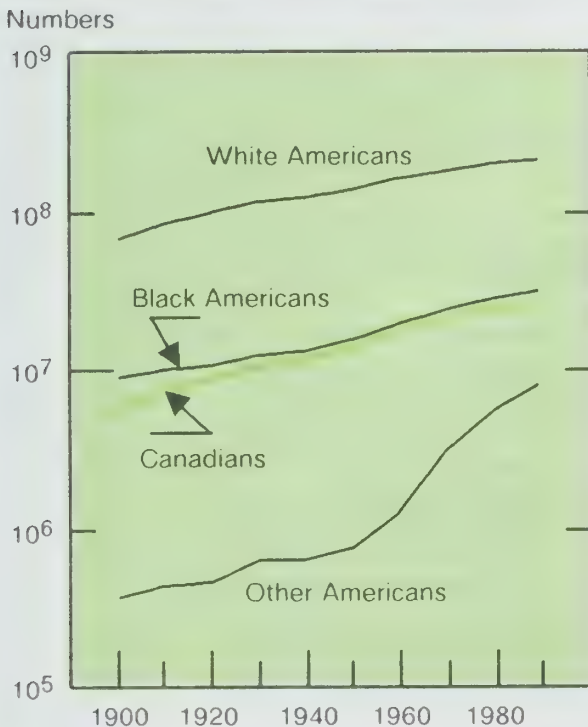
Source: United States: U.S. Department of Commerce, *Historical Statistics of the United States*.
Canada: Statistics Canada, *Historical Statistics of Canada*.

but non-white persons still accounted for 10.5%, and of them, black persons accounted for 89%. Only recently have these population percentages begun to shift. From the United States of 203 million people in 1970, to the United States of 243 million people in 1987, the non-white proportion increased from 12.5% of the population to 15.4%. Only 80% of non-white persons in 1987 were black, while the proportion accounted for by other non-white races had grown. By 1988, 3.2% of the U.S. population was made up of persons not classified as either black or white; this percentage translates to about 7,900,000 persons.

Graph I summarizes and compares the population growth of Canada and the United States since the beginning of the century. The most remarkable feature is the dissimilarity in the pace of average annual growth over the long run between the Canadian population (1.82 per 1,000) and the American white population (1.29 per 1,000). Another distinct feature is the rapid development of populations of “other races” after 1960.

The American population increased by almost 39 million persons, at a slower average annual growth rate of 1.01 per 1,000 between 1970 and 1987 (Table 2). This average has not varied extensively; the largest swing was from 1.28 in 1970 to 0.92 in 1973. Natural increase represents the most important part of this population growth, as shown in Graph 2. The first years of the 1970s were marked by a brief burst in the number of births, which temporarily lifted natural increase. Another increase in the second part of the 1980s represents the “baby-boom echo” reinforced by the postponement of childbearing among certain cohorts. The small increases in net migration for certain years reflect periods when large groups of refugees were accepted into the U.S..

Chart 1
Population Growth, Canada and
United States, 1900-1988



Source: *Historical Statistics of the United States and Statistics Canada. Decennial Censuses.*

Disaggregation of the three races, unequally weighted in the total U.S. population, unmask essential differences in their demographic behaviour. Even if all three have followed the same direction in fertility, mortality, and migration trends, they have done so at their own levels and at their own pace (Table 2). The white population increased at an average rate of 8.2 per 1,000 between 1970 and 1987; the black population increased at an average rate of 16 per 1,000; and the population of other races increased at an average rate of 58.6 per 1,000. The higher rate of black relative to white population growth stemmed mainly from natural increase. Even if natural increase was higher among the other races than among blacks, immigration also boosted their growth rate. The immigration rate among the other races was up to six times the level for whites.

Natural growth of the Canadian population has followed in the path of the U.S. since the war years, but has been, for the most part, stronger (Graph 2). The baby-boom in Canada coincided exactly with the baby-boom in the U.S. (all races) but birth rates were somewhat higher in Canada. The Canadian birth rate declined in the 1960s more sharply than the U.S. rate, such that by 1968, the rates were at par. Since the end of the 1970s, however, the U.S. rate has overshoot the Canadian rate by a small margin. The nuances underlying these shifts will be elaborated in the discussion to follow.

The mortality rate has been higher in the United States than in Canada in recent years. This does not necessarily mean that U.S. mortality, per se, is higher, because age structure plays a part in the construction of this index.

Age Structure

Viewed globally, the American and Canadian populations present approximately the same level of aging (Graph 3 and Table 3). The Canadian population appears to be slightly younger because the proportion of aged persons is lower. This Canadian age for the time being a lower level of demographic

Table 2. Summary Demographic Indicators for Canada and the U.S. by Race, 1970-1987

United States														
Year	Total							Whites						
	Population as of January 1 ¹	Total Growth ¹	Natural Increase ¹	Immi- gration ¹	Total Growth Rate (per 1000)	Rate of Natural Increase (per 1000)	Rate of Immi- gration (per 1000)	Population as of January 1 ¹	Total Growth ¹	Natural Increase ¹	Immi- gration ¹	Total Growth Rate (per 1000)	Rate of Natural Increase (per 1000)	Rate of Immi- gration (per 1000)
1970	203,849	2,617	1,812	438	12.8	8.8	2.1	178,692	2,050	1,408	327	11.4	7.8	1.8
1971	206,466	2,451	1,626	387	11.8	7.8	1.9	180,743	1,861	1,228	255	10.2	6.8	1.4
1972	208,917	2,068	1,293	325	9.9	6.2	1.5	182,603	1,515	933	199	8.3	5.1	1.1
1973	210,985	1,947	1,163	331	9.2	5.5	1.6	184,118	1,396	822	195	7.6	4.4	1.1
1974	212,932	1,999	1,225	316	9.3	5.7	1.5	185,515	1,440	878	175	7.7	4.7	0.9
1975	214,931	2,165	1,251	449	10.0	5.8	2.1	186,955	1,459	891	173	7.8	4.7	0.9
1976	217,095	2,084	1,258	353	9.6	5.8	1.6	188,413	1,478	892	184	7.8	4.7	1.0
1977	219,179	2,298	1,426	394	10.4	6.5	1.8	189,891	1,657	1,027	223	8.7	5.4	1.2
1978	221,477	2,388	1,405	508	10.7	6.3	2.3	191,549	1,698	991	295	8.8	5.2	1.5
1979	223,865	2,586	1,580	540	11.5	7.0	2.4	193,247	1,587	1,132	271	8.2	5.8	1.4
1980	226,451	2,582	1,622	845	11.3	7.1	3.7	194,834	1,580	1,160	431	8.1	5.9	2.2
1981	229,033	2,371	1,651	718	10.3	7.2	3.1	196,414	1,554	1,177	374	7.9	6.0	1.9
1982	231,405	2,332	1,705	626	10.0	7.3	2.7	197,967	1,548	1,213	334	7.8	6.1	1.7
1983	233,736	2,224	1,619	605	9.5	6.9	2.6	199,515	1,473	1,138	334	7.4	5.7	1.7
1984	235,961	2,246	1,629	615	9.5	6.9	2.6	200,988	1,476	1,141	334	7.3	5.7	1.7
1985	238,207	2,316	1,667	648	9.7	7.0	2.7	202,464	1,521	1,167	352	7.5	5.7	1.7
1986	240,523	2,219	1,594	625	9.2	6.6	2.6	203,985	1,444	1,097	346	7.1	5.4	1.7
1987	242,742	(ND)	(ND)	(ND)	(ND)	(ND)	(ND)	205,429	(ND)	(ND)	(ND)	(ND)	(ND)	(ND)

See notes at end of this table.

Tableau 2. Summary Demographic Indicators for Canada and the U.S. by Race, 1970-1987 - Continued

United States														
Year	Blacks							Other Races						
	Population as of January 1 ¹	Total Growth ¹	Natural Increase ¹	Immi- gration ¹	Total Growth Rate (per 1000)	Rate of Natural Increase (per 1000)	Rate of Immi- gration (per 1000)	Population as of January 1 ¹	Total Growth ¹	Natural Increase ¹	Immi- gration ¹	Total Growth Rate (per 1000)	Rate of Natural Increase (per 1000)	Rate of Immi- gration (per 1000)
1970	22,617	424	349	39	18.6	15.3	1.7	2540	142	55	72	54.4	21.0	27.6
1971	23,040	426	340	42	18.3	14.7	1.8	2683	164	58	89	59.3	21.0	32.2
1972	23,467	388	303	35	16.4	12.8	1.5	2846	165	57	91	56.3	19.5	31.1
1973	23,854	373	282	38	15.5	11.8	1.6	3013	178	59	99	57.4	19.0	31.9
1974	24,228	374	284	39	15.3	11.6	1.6	3189	185	63	103	56.4	19.2	31.4
1975	24,602	382	294	38	15.4	11.8	1.5	3374	324	66	238	91.6	18.7	67.3
1976	24,983	384	295	42	15.3	11.7	1.7	3699	221	71	127	58.0	18.6	33.3
1977	25,367	417	324	48	16.3	12.7	1.9	3920	224	76	123	55.6	18.8	30.5
1978	25,784	429	330	61	16.5	12.7	2.3	4144	260	84	152	60.8	19.7	35.6
1979	26,213	467	357	54	17.7	13.5	2.1	4405	532	91	215	113.9	19.5	46.0
1980	26,680	452	356	75	16.8	13.2	2.8	4937	550	106	339	105.5	20.3	65.0
1981	27,132	428	359	69	15.7	13.1	2.5	5487	390	115	275	68.6	20.2	48.4
1982	27,560	424	366	58	15.3	13.2	2.1	5877	360	127	234	59.4	21.0	38.6
1983	27,985	407	353	54	14.4	12.5	1.9	6236	345	128	217	53.8	20.0	33.9
1984	28,391	410	357	54	14.4	12.5	1.9	6582	359	131	227	53.1	19.4	33.6
1985	28,802	422	365	58	14.6	12.6	2.0	6940	373	135	237	52.3	18.9	33.3
1986	29,224	420	363	57	14.3	12.3	1.9	7313	355	134	221	47.4	17.9	29.5
1987	29,644	(ND)	(ND)	(ND)	(ND)	(ND)	(ND)	7669	(ND)	(ND)	(ND)	(ND)	(ND)	(ND)

See notes at the end of this table.

Table 2. Summary Demographic Indicators for Canada and the U.S. by Race, 1970-1987 - Concluded

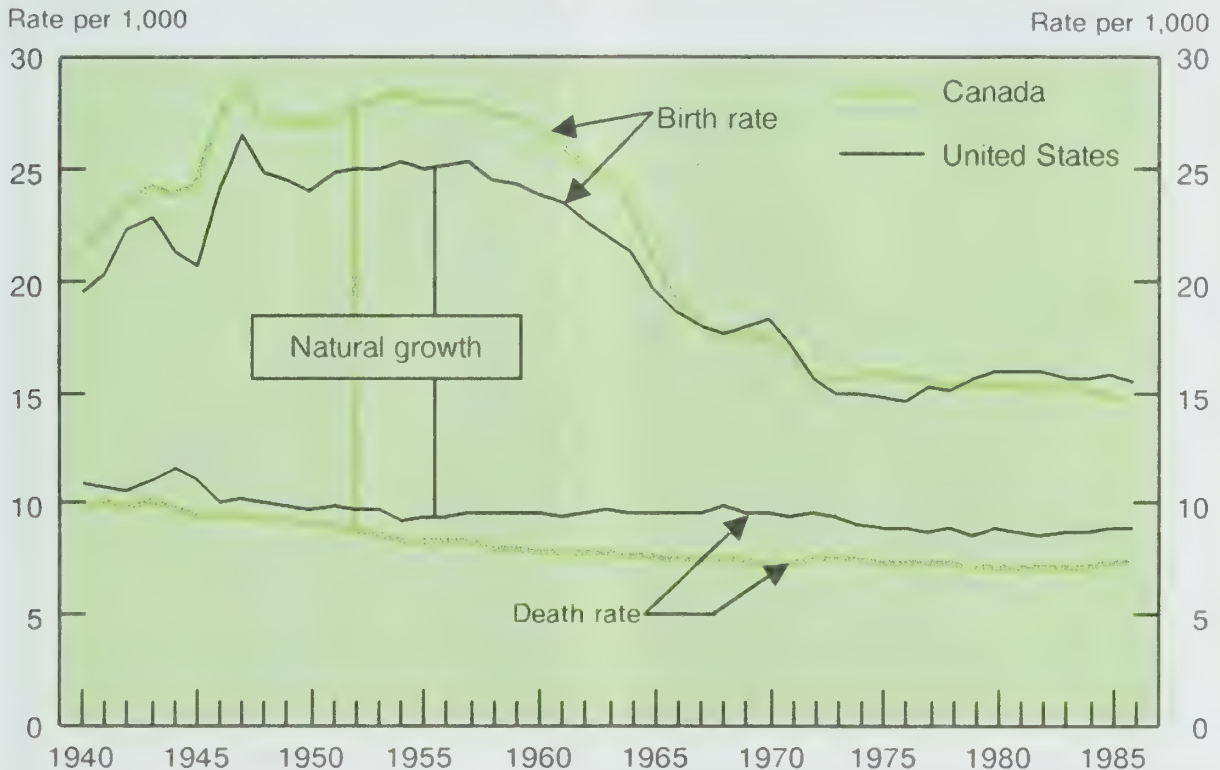
Year	Canada (Total)						
	Population as of January 1 ¹	Total Growth ¹	Natural Increase ¹	Immi- gration ¹	Total Growth Rate (per 1000)	Rate of Natural Increase (per 1000)	Rate of Immi- gration (per 1000)
1970	21,182	283	216	148	13.3	10.1	6.9
1971	21,465	245	205	122	11.3	9.5	5.7
1972	21,710	233	185	122	10.7	8.5	5.6
1973	21,942	293	180	184	13.3	8.1	8.3
1974	22,235	333	184	219	14.9	8.2	9.8
1975	22,569	315	193	188	13.9	8.5	8.3
1976	22,884	275	193	149	11.9	8.4	6.5
1977	23,158	259	194	115	11.1	8.3	4.9
1978	23,417	227	191	86	9.6	8.1	3.7
1979	23,645	267	198	112	11.2	8.3	4.7
1980	23,912	309	199	143	12.8	8.3	5.9
1981	24,221	262	200	129	10.8	8.2	5.3
1982	24,483	222	199	121	9.0	8.1	4.9
1983	24,706	190	199	89	7.7	8.0	3.6
1984	24,896	195	201	88	7.8	8.0	3.5
1985	25,090	184	194	84	7.3	7.7	3.3
1986	25,274	219	189	99	8.6	7.4	3.9
1987	25,493	293	(ND)	(ND)	(ND)	(ND)	(ND)

¹ In thousands.

Source: United States: U.S. Department of Commerce, *United States Population Estimates and Components of Change: 1970 to 1986*, Series P-25, no. 1006.
Canada: Data from the Population Estimates Section and from the Canadian Centre for Health Information. Calculations done in the Demography Division, Statistics Canada.

Chart 2

Natural Growth Components, United States and Canada, 1940-1986



Sources: Statistics Canada, Vital Statistics.

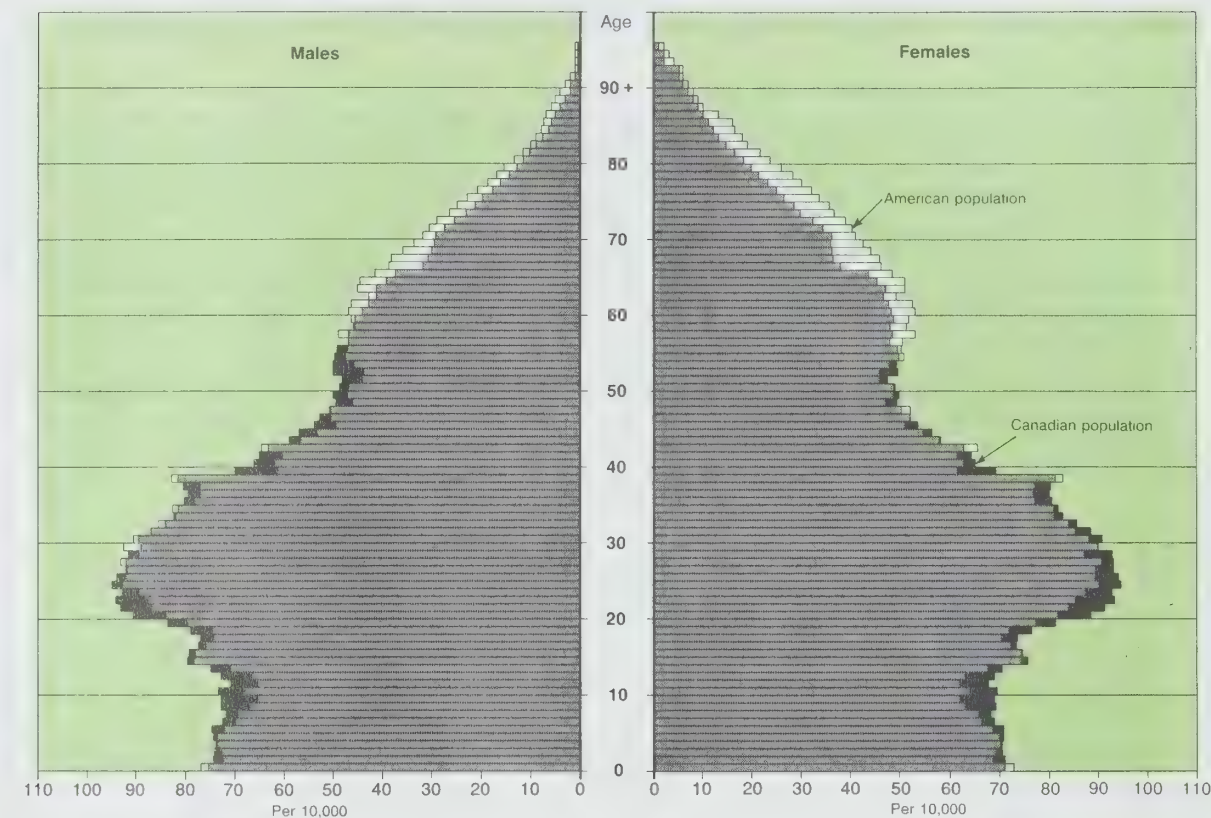
U.S. Monthly Vital Statistics Report, Vol. 38, no 12, April 1990.

dependencies (a dependency ratio of 57.2 compared with 50.9 for the U.S.). But when the American population is compared by race, the mean of this difference becomes clear (Table 3). The white American population has relatively fewer young persons, fewer adults and appreciably more elderly persons. But the non-white population is much younger (Graph 4). Among them, the non-black group has an age structure that bears the mark of newly-immigrated populations: a smaller proportion of elderly persons and a few more adults. These observations reinforce the remarks made earlier on the growth differentials for the three racial subpopulations.

INTERNATIONAL MIGRATION

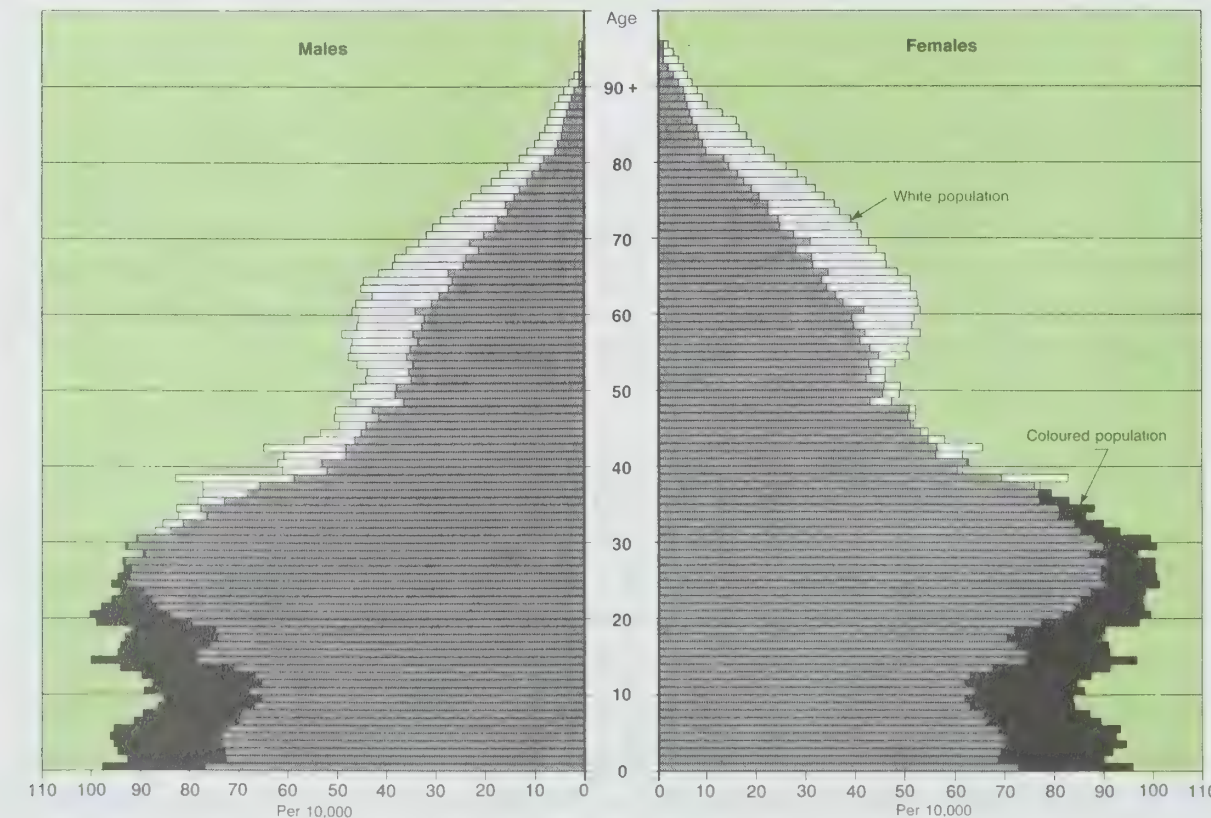
Both Canada and the United States were originally countries of settlement. From the time of the first settlers and throughout the eighteenth, nineteenth and twentieth centuries, both have continued to import large groups of immigrants which were added to the naturally expanding population. As in other demographic domains, there are similarities and differences in the quantities, origin and other characteristics of these new American and Canadian

Chart 3
Age Pyramids for the Canadian and American White Population, 1985



Sources: Statistics Canada, Demography Division, Population Estimates Section
U.S. Department of Commerce: Estimates of Population of the United States by Age and Race: 1980-1985

Chart 4
Age Pyramids for the White and Coloured Populations
United States, 1985



Source: U.S. Department of Commerce: Estimates of Population of the United States, by Age, Sex and Race: 1980-1985

Table 3. Age Structure of the Canadian Population and the American Population by Race, 1987

Age	United States								Canada	
	White Population		Black Population		Other Races		Total		Number ¹	%
	Number ¹	%	Number ¹	%	Number ¹	%	Number ¹	%		
0-14	42,240	20.5	8,062	27.0	2,095	26.6	52,398	21.5	5,422	21.2
15-64	137,083	66.5	19,346	64.8	5,254	66.8	161,681	66.3	17,403	67.9
65 +	26,864	13.0	2,448	8.2	523	6.6	29,836	12.2	2,793	10.9
Total	206,187	100.0	29,856	100.0	7,872	100.0	243,915	100.0	25,622	100.0
Dependency Ratio	0.504		0.543		0.498		0.509			

¹ In thousands.

Source: United States: U.S. Department of Commerce *United States Population Estimates by Age, Sex and Race: 1980 to 1987*, Series P-25.

Canada: Statistics Canada, *Quarterly Population Estimates*, Estimates Section, Demography Division.

citizens. The major historical events of the twentieth century (the two World Wars and the Depression of the 1930s) have had repercussions of the same magnitude on both countries.

The Major Historical Events

World War I was the first event to break strong tides of immigration into Canada and the United States. The U.S. received 5,735,000 immigrants between 1911 and 1920, but 72% arrived before 1915. Similarly, 65% of the 1,712,254 immigrants welcomed to Canada during this decade had already arrived by 1914. International immigration to North America never recovered the intensity of these years before World War I.

Immigration flows were also weak during the Depression and World War II. Some 310,000 immigrants entered the United States annually at the close of the 1920s, but only about 23,000 entered at the depth of the Depression in 1933. Canada received about 165,000 immigrants annually before the Depression, but only about 11,000 in 1935. Immigration remained listless throughout World War II. Recorded admissions reached all-time lows of 23,000 annual entries for the United States, and 7,500 annual entries for Canada.

Immigrants entered North America in increasingly larger streams during the calm following the chaotic war years. Flows into the United States went from about 200,000 annually at the close of the war to gradually reach the present level of 650,000. Post-war immigration into Canada was more haphazard. It ebbed and flowed to yield an annual average of 130,000 entrants for the entire period up the present (Graph 5).

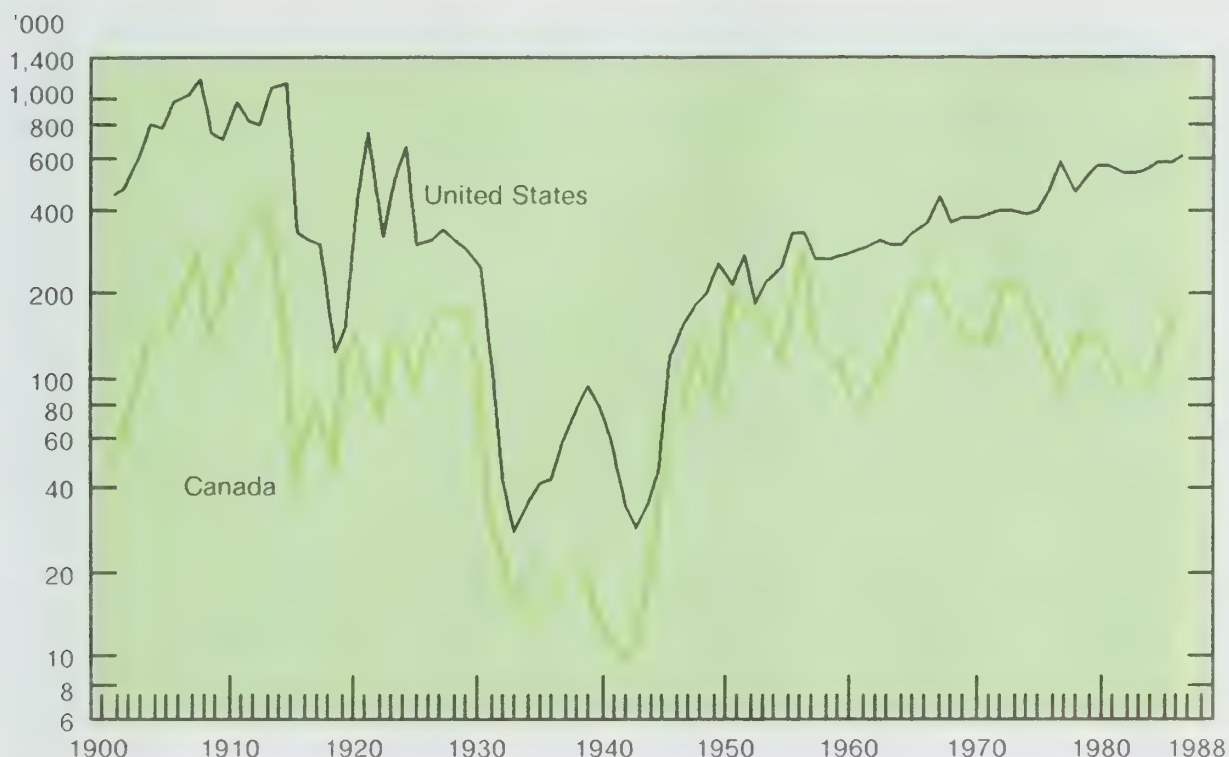
Immigration Policy

Immigration has many facets, even in a strictly demographic framework. The relationship between the number of immigrants and the receiving population can be interpreted as the country's ability to absorb newcomers, whether the number of immigrants stems from specific immigration policies or from the more simple laws of supply and demand.

In this perspective, Canada has been considerably more accepting of immigrants than has the United States at least since the beginning of this Century (Graph 6). The maximum ratio of immigrants to population was achieved in 1913 at 52.5 per 1,000. The maximum in Canada was reached in 1913 at 52.5 per 1,000. Even when ratios dropped during the Depression and during World War II, the Canadian ratio remained higher, at 0.6 per 1,000 compared with 0.2 for the U.S.

Chart 5

Immigrants to Canada and the United States, 1900-1988



Sources: *Statistical Yearbook of the Immigration and Naturalization Service, U.S. Department of Justice, 1988*, and *Immigration Statistics, Employment and Immigration Canada, 1988*.

American immigration flows have increased at a more or less constant rate since 1921; they display a regular curve quite unlike the haphazard shape of the Canadian curve. These patterns, in part, reflect differences in immigration policy. For most of the time since 1921, American laws have been based on the quota system, which pegs the number of admissions to the number of citizens from the same country already on American soil. Canada has at times in the past limited access to certain categories of immigrants, but it has never fixed quotas. Instead, it has applied regulations that express either an “open-door” or a “closed-door” approach, which functions according to the state of the economy. Currently, immigrants are welcome.

U.S. and admitted immigrants in the 1980s. Canada, in 1988, had 1.5 million new immigrants, and Canada, in 1988, had 1.5 million new immigrants.

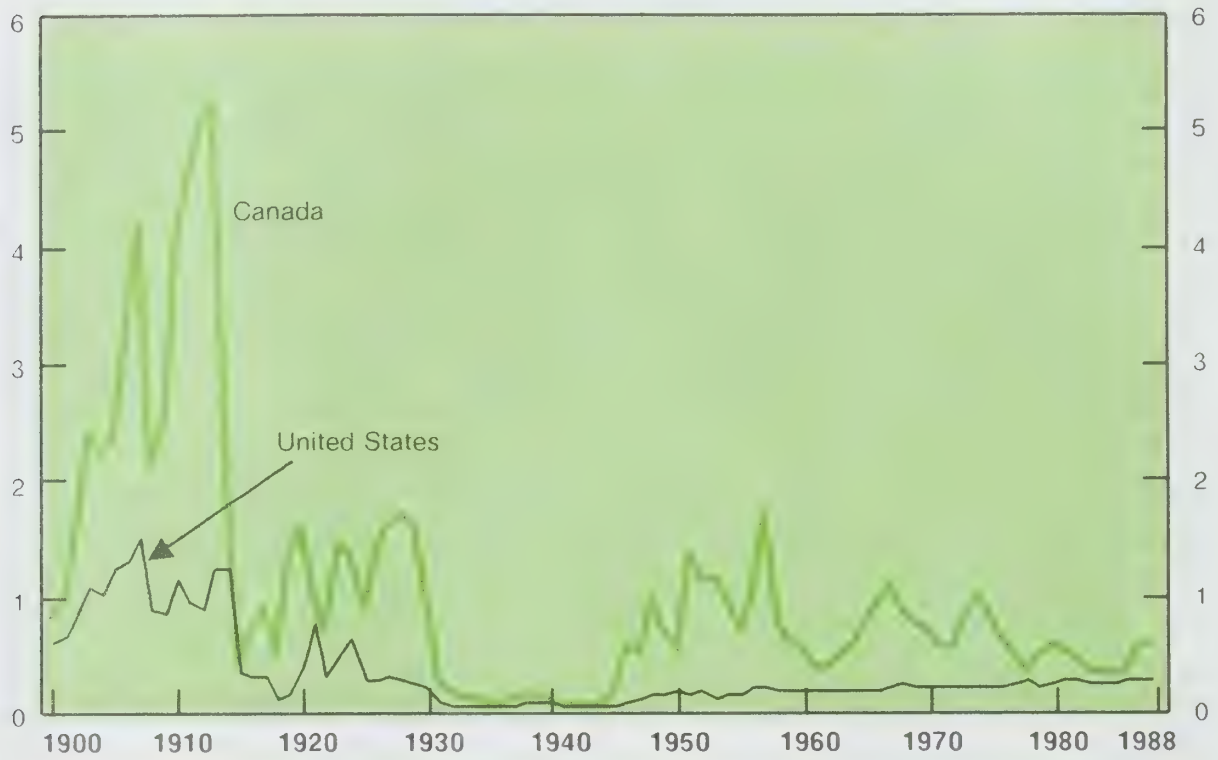
Immigration Waves

In the United States

The years of World War I, the Depression and World War II divide the modern history of North American immigration into two distinct periods. The first period represents the hegemony of Europe. At least 75% of immigrants

Chart 6

The Immigrant Population as a Percentage of the Total Population, Canada and the United States, 1900-1988



Sources: *Employment and Immigration Canada, Immigration Statistics.*
Statistical Year Book of the Immigration and Naturalization Service 1988,
U.S. Department of Justice, August 1989.

to the United States originated from Europe every year during this period, with proportions as high as 96% between the years 1881 and 1900. Remaining immigrants came primarily from other countries of the American continent, such as Canada and the Caribbean. Almost 3 million immigrants left Canada for the United States between 1861 and the Depression.

Immigration from Europe has itself proceeded in waves (Table 4). The first was the German wave which lasted from 1851 until World War I. Partly because Germany had no colonies, Germans in search of homes abroad immigrated to the United States in numbers that totalled 5.5 million. Another half a million immigrated to the U.S. between World War I and the Depression. These departures made German immigration highly influential, even more so than immigration from the United Kingdom, which was itself substantial, at 3.5 million before World War I, and about 600,000 between World War I and the Depression. Three other countries were prominent contributors to U.S. immigration, although to a lesser extent. Russia contributed an impressive 3.5 million immigrants; Scandinavia contributed 1.5 million (another 350,000 came after the War); and Italy after its unification contributed 1.5 million.

Table 4. Immigrants to the United States from Selected Regions and for Selected Periods, 1981-1980

Region or Country of Last Residence	1841- 1850	1851- 1860	1861- 1870	1871- 1880	1881- 1890	1891- 1900	1901- 1910	1911- 1920	1921- 1930	1931- 1940	1941- 1950	1951- 1960	1961- 1970	1971- 1980
Europe	434,626	951,667	787,468	718,182	1,452,970	505,152 651,893	341,498 2,045,877	1,109,524	412,202		226,578	477,765		
Germany														
Italy														
Norway and Sweden					568,362 213,282	321,281 505,290	440,039 1,597,306	921,201 341,408	339,570			202,824	213,822 427,642	1,588,178 124,326
Russia			606,896	548,043	807,357	271,538	525,950 323,543	247,236						
United Kingdom														
Asia														
China				123,201										
America														
Canada and Newfoundland				383,640	393,304			742,185	924,515				470,213 208,536	741,126 264,863
West Indies														
Cuba														

Source: *Statistical Yearbook of the Immigration and Naturalization Service 1988*, U.S. Department of Justice, Immigration and Naturalization Service, August 1989.

Table 5. Percentage Distribution of Immigrants by Region/Country of Origin, U.S., 1978-1988

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1978-1988 Average
Europe	12.2	13.2	13.6	11.2	11.6	10.5	11.8	11.1	10.4	10.2	10.1	65,100
United Kingdom	2.4	3.0	2.9	2.5	2.4	2.6	2.6	2.4	2.3	2.2	2.1	14,300
Asia	41.5	41.1	44.5	44.3	52.7	49.6	47.1	46.4	44.6	42.8	41.1	258,200
Philippines	6.2	9.0	8.0	7.3	7.6	7.4	7.9	8.4	8.7	8.3	7.9	45,000
Africa	1.9	2.8	2.6	2.5	2.4	2.7	2.9	3.0	2.9	2.9	2.9	15,400
Oceania	0.7	1.0	0.7	0.7	0.6	0.6	0.7	0.7	0.6	0.7	0.6	4,000
North America	36.7	34.2	31.1	35.3	26.6	30.1	30.7	31.9	34.5	36.0	38.9	190,600
Canada	2.8	3.0	2.6	1.9	1.8	2.0	2.0	2.0	1.8	2.0	1.8	12,226
Mexico	15.4	11.3	10.7	17.0	9.4	10.6	10.6	10.7	11.1	12.0	14.8	69,600
Caribbean	15.2	16.1	13.8	12.3	11.3	13.1	13.7	14.6	16.9	17.1	17.5	84,000
South America	6.9	7.7	7.5	6.0	6.0	6.4	6.9	6.9	7.0	7.4	6.4	39,100
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	573,000

Source: U.S. Department of Justice, 1988 *Statistical Yearbook of the Immigration and Naturalization Service*.

The role of Europe in U.S. immigration began to fade after World War II. About 53% of immigrants who came during the 1950s were from Europe, but only 18% originated from that continent during the 1980s (Table 6). Immigrants to the U.S. now originate from Asia, especially since 1971, and from the Caribbean, South America, and Central America. For the 1981-88 period, Asia provided 45% of the total immigrant population, while the Caribbean provided 14%, South America 7%, and Central America 5%. Mexico alone supplied 12% of all legal immigrants to the U.S. during this period.

In Canada

British origins have always been a more important component of Canadian immigration flows than American ones. They represented between 35% and 45% of all persons who immigrated to Canada before 1925. This level then began to decline. Europe, however, remained the principal, if not the only, supplier of new Canadians from 1925 until World War II. It was largely the Germans, Austrians, Ukrainians, Hungarians and other Central Europeans, rather than the Mediterraneans, that came to Canada in those years. But immigration started to diversify immediately after the war. Large waves of Italians, Germans, Hungarians, Dutch and Portuguese arrived successively (Table 6).

European immigrants in Canada have become fewer in both number and proportion since World War II. Europe plays a smaller role in the latter immigration periods of both Canada and the U.S., but it still holds more weight

Table 6. Immigrants to Canada by Selected Ethnic Origins and for Selected Periods, 1900-1961

	1900-1906	1906-1915	1916-1925	1926-1935	1946-1955	1956-1961
Total	837,000	2,278,000	916,000	818,000	1,222,000	855,000
British	327,000	926,000	402,000	274,000	368,000	244,000
Hebrew	24,000		31,000	22,000		
Polish	42,000		18,000	35,000		18,000
Russian	16,000	82,000				
Austrian		26,000				
Italian		92,000	21,000		135,000	151,000
German		28,000		65,000	159,000	98,000
Swedish		18,000				
Ukranian		59,000			34,000	
Czechoslovakian				24,000		
Hungarian	28,000			40,000		
Yugoslavian				16,000		21,000
Dutch					115,000	41,000
Portuguse						21,000

Source: *Immigration Statistics 1896-1961*, Employment and Immigration Canada.

in Canada. Asia has become the major supplier of immigrants to Canada, but while South America, the Caribbean and Central America have also emerged as important origins, they have contributed to a lesser extent than in the U.S. (see Part I). The role of Mexico in Canadian immigration is, for the time being, almost non-existent. Large contingents of immigrants came to Canada from the U.S., especially throughout the first half of the twentieth century (more than a third of all entries up until the Depression).

Where Do Immigrants Settle?

Within the economic and political structure of contemporary Canada, which now supports a population of about 26 million inhabitants, there are three major centres of attraction for international immigrants. Ontario is chosen by about 50% of newcomers each year, while British Columbia and Quebec absorb 15% each. The other provinces share the remaining 20% of newcomers. This pattern of settlement has remained practically unchanged for the last thirty years. With the arrival of more Asians, however, British Columbia has become more important in the destination intentions of immigrants (Table 7).

The U.S. shows an identical attraction pattern, but for a country with ten times the population, the centres are proportionately fewer. According to 1993 data, the four states of California, New York, Florida and Texas claim almost two-thirds (64%) of new arrivals. The first two states become home to nearly half of all immigrants (46.9%) and California alone absorbs 30%. The remaining 47 states share 36% of new arrivals.

Data from the last twelve years show two important trends. The first is the declining share of the American Midwest. This region attracted more than 14% of all immigrants annually before 1976. The proportion had fallen to less than 10% by 1988. The State of Illinois itself was not immune. Its share of immigrants fell from 7.1% in 1976 to 4.4% in 1988. The popularity of the Pacific West region is also fading. In 1976, 36% of new Americans settled in one of this region's nine states, and of this number, New York alone attracted two-thirds. But the region attracted only 28% of newcomers in 1988, and New York welcomed only 17%.

British Columbia in Canada and California in the United States are gateways from the Pacific and Asia. They have come to represent the North American ideal for foreigners who wish to immigrate to the continent.

The Foreign-Born Population

As a natural consequence of the flux in the intensity and origin of immigration waves, Canada and the United States reveal distinct ethnocultural compositions. Immigration to the U.S. began with the forced immigration of the slave days. The geographic proximity of Central America, South America and

Table 7. Percentage Distribution of Immigrants by Intended Destination, Canada and the U.S., 1976-1988

United States	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
North East	36.1	34.2	30.2	34.3	..	..	26.3	29.8	31.6	30.6	30.7	31.2	29.0
New York	22.1	19.7	17.0	20.9	..	..	15.1	17.8	20.0	18.6	18.5	19.2	17.2
Midwest	14.4	12.6	13.6	11.5	..	..	14.2	12.1	11.2	10.9	10.2	10.0	9.7
Illinois	7.1	5.5	5.7	4.3	..	..	6.0	5.0	5.0	4.7	4.4	4.4	4.4
South	19.9	24.8	24.0	20.7	..	..	21.5	23.9	23.2	23.1	23.5	24.8	25.0
Texas	6.1	4.7	7.9	6.8	..	..	8.5	8.9	7.9	7.8	7.1	7.1	6.8
West	29.6	28.3	32.2	33.4	..	..	38.0	34.2	34.0	35.3	35.6	34.0	36.3
California	22.8	21.9	24.7	26.4	..	..	29.0	25.8	26.2	27.7	28.4	27.1	29.7
Canada	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Quebec	16.0	16.9	17.6	18.0	18.5	19.0	19.5	20.0	20.5	21.0	21.5	22.0	22.5
British Columbia	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0	27.0	28.0	29.0	30.0	31.0
Alberta	13.8	14.8	15.8	16.8	17.8	18.8	19.8	20.8	21.8	22.8	23.8	24.8	25.8

Source: United States: U.S. Department of Justice, *Statistical Yearbook of the Immigration and Naturalization Service*, annual.
Canada: Employment and Immigration Canada, annual statistics.

the Caribbean lent territorial continuity to patterns of immigrant settlement. For this reason, the ethnocultural composition of the U.S. is entirely different from that of Canada's. This topic will not be discussed as such, although present differences can be observed from 1980 Census data on place of birth (Table 8).

Table 8. Foreign-born Population by Place of Birth, Canada (1981) and the United States (1980)

Place of Birth	United States	%	Canada	%
France	120,215	0.9	56,175	1.0
Germany	849,384	6.0	198,215	5.1
Italy	831,922	5.9	386,505	10.0
Netherlands	103,136	0.7	138,760	3.6
Poland	418,128	3.0	148,940	3.9
Portugal	177,437	1.3	139,765	3.6
United Kingdom	669,149	4.8	884,915	22.9
Other Europe	1,574,179	10.9	632,725	16.4
Total Europe	4,743,550	33.7	2,586,000	66.9
India	206,087	1.5	109,660	2.8
Japan	221,794	1.6	11,910	0.3
Korea	289,885	2.1	10,165	0.3
Philippines	501,440	3.6	66,460	1.7
Vietnam	231,120	1.6	50,710	1.3
Other Asia	1,089,451	7.7	294,590	7.6
Total Asia	2,539,777	18.0	543,495	14.1
United States	N/A	-	312,015	8.1
Canada	842,859	6.0	N/A	-
Mexico	2,199,221	15.6	11,310	0.3
West Indies	1,258,363	8.9	174,145	4.5
Other North and Central America	364,460	2.6	6,030	0.2
Total North and Central America	4,664,903	33.1	503,500	13.0
Total South America	561,011	4.0	91,105	2.4
Total Africa	199,723	1.4	102,725	2.7
Other Countries	1,370,942	9.7	40,335	1.0
Total	14,079,906	100.0	3,867,160	100.0

Source: United States: *Detailed Population Characteristics*, 1980 Census of Population, Volume 1, March 1984.

Canada: *Place of Birth, Citizenship, Period of Immigration*, 1981 Census of Canada, Statistics Canada, February 1981.

About 16% of the population of Canada was foreign born in 1981, whereas in the United States, only 6% of the population was foreign born in 1980. This represents a major difference. But since these proportions are relative to size, the American foreign-born population numbered 14 million people, compared with less than 4 million for the Canadian foreign-born population.

Even though the entire U.S. immigrant population is more than 3.5 times larger than the Canadian one, the European-born population is not even twice as large. The Central American-born population, by contrast, is twenty times larger in the U.S. than in Canada, and the South American-born population is six times as large.

Unsuspected differences emerge among other source countries. Eight times more people born in the United Kingdom and Holland are found in Canada, while twice as many people born in France and Italy are found in the U.S. Almost the same number of Portuguese are found in either country. Considerable differences appear among Asian arrivals, probably because they are a more recent immigration source. There were 19 times as many Japanese persons in the U.S. in 1980 as in Canada in 1981, 28 times as many Koreans, 7.5 times as many Philippinos, and 4.5 times as many Vietnamese.

MARRIAGES

The marital structure of the Canadian and American populations presents some notable differences (Table 9). It is observed that:

1. There are proportionally more singles below the age of 25 in Canada as in the U.S. This suggests *an earlier onset of first marriage among Americans.*
2. The proportion of singles at the other end of the life span (above the age of 40) is also higher in Canada than in the U.S. This could indicate that generations born before the War married less frequently in Canada notwithstanding the effect of migration.
3. Even though remarriages are more frequent in the U.S. than in Canada (as will be shown later) *the proportion of divorced persons will remain higher there.*

Unfortunately, marriage statistics from the vital statistics files are not abundant, so only a few points of comparison are possible, and the indices are not the most desirable.

Total First Marriage Rate

In both Canada and the United States, the total first marriage rate for both sexes has declined since the beginning of the 1970s. This could indicate a delay

Table 9. Percentage Distribution of the American and Canadian Populations 18 Years and Over by Marital Status, Showing Age, 1987

Age	Total	Single		Married		Widowed		Divorced	
		Ameri- cans	Cana- dians	Ameri- cans	Cana- dians	Ameri- cans	Cana- dians	Ameri- cans	Cana- dians
Males 18 +	100.0	25.3	26.5	65.5	67.7	2.5	2.3	3.5	3.5
18-19	100.0	98.6	98.6	3.1	1.4	-	-	-	-
20-24	100.0	81.7	81.7	20.7	18.0	0.1	-	1.5	0.3
25-29	100.0	41.4	41.4	52.3	56.8	-	0.1	5.4	1.8
30-34	100.0	20.3	20.3	68.8	75.8	0.1	0.1	8.0	3.8
35-39	100.0	12.4	12.0	76.6	82.7	0.2	0.2	10.9	5.1
40-44	100.0	6.9	8.0	81.8	85.4	0.5	0.4	10.8	5.9
45-54	100.0	5.9	8.0	84.1	86.1	1.2	1.0	8.8	5.9
55-64	100.0	5.8	8.3	84.1	85.0	2.9	3.2	7.3	4.6
65-74	100.0	4.7	7.0	81.5	82.0	9.0	8.1	4.8	2.9
75 +	100.0	4.3	7.9	68.8	66.8	23.6	23.7	3.3	1.6
Females 18 +	100.0	18.6	19.9	60.5	64.7	12.1	10.8	8.7	4.8
18-19	100.0	99.8	93.4	9.9	6.6	-	-	0.3	-
20-24	100.0	60.8	62.6	36.0	36.6	0.1	0.1	3.2	0.7
25-29	100.0	28.8	26.7	63.3	70.0	0.3	0.2	7.6	3.1
30-34	100.0	14.6	13.8	73.4	80.0	0.8	0.5	11.2	5.7
35-39	100.0	8.4	9.0	76.7	82.5	1.3	0.9	13.6	7.5
40-44	100.0	6.4	6.8	76.7	82.8	2.4	1.8	14.5	8.6
45-54	100.0	4.5	5.7	76.6	81.7	5.8	4.8	13.1	7.8
55-64	100.0	4.2	5.3	70.1	73.4	16.7	15.3	9.0	5.4
65-74	100.0	4.8	7.4	53.0	54.3	36.7	35.2	5.5	3.1
75 +	100.0	6.4	8.1	23.8	23.5	67.0	65.4	2.7	1.2

Source: United States: U.S. Department of Commerce, *Marital Status and Living Arrangements: March 1987*, Current Population Reports, Series P-20, No. 423.
 Canada: Unpublished data, Estimates Section, Demography Division, Statistics Canada.

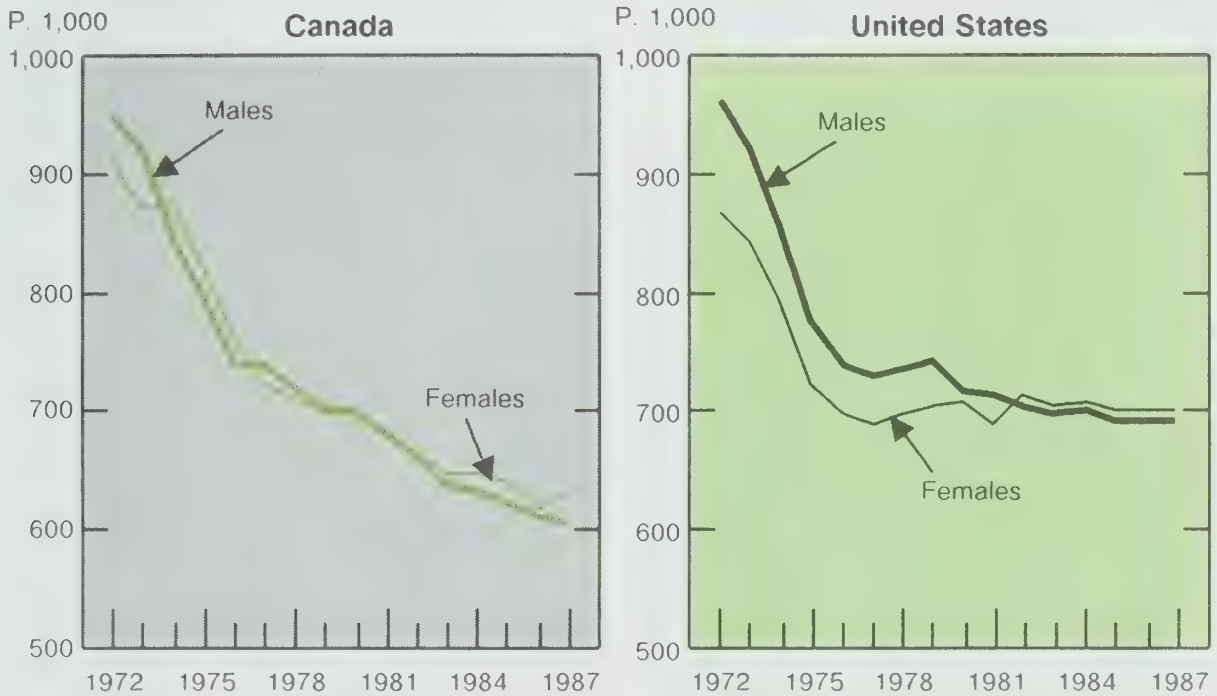
in the timing of first marriage and/or a weaker propensity to marry altogether (Graph 7). The decrease has lasted longer in Canada than in the United States, where the rates seem to have stabilized since 1978. Rates for women decreased by 31% in Canada and by 19% in the U.S. Rates for men decreased by 36% in Canada and by only 28% in the U.S.

The 1986 total first marriage rate is clearly higher for both men and women in the U.S.³ Of the factors that explain this divergence, two work in conjunction. There are higher marriage rates in the Southern states, and to a lesser extent in the Western states, which tend to boost the total American rate. The very low marriage rates in Quebec, on the other hand, work to lower the total Canadian rate.

³ All races combined.

Chart 7

Total First Marriage Rate, Canada and United States, 1972-1986



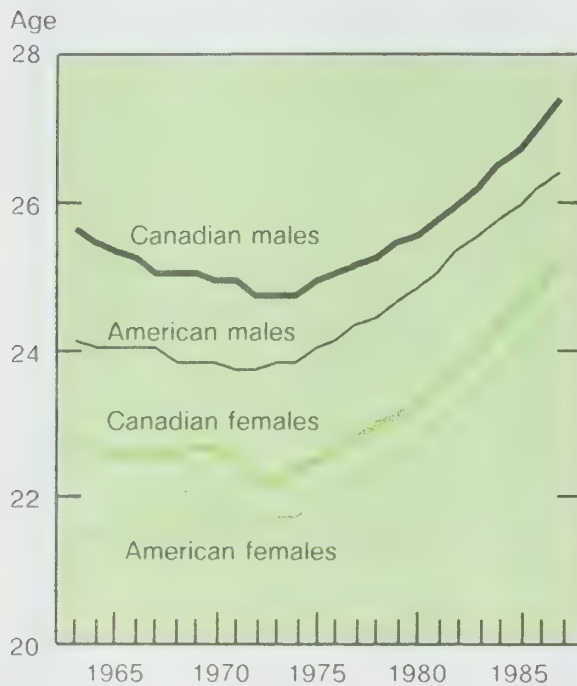
Sources: Statistics Canada. Vital Statistics and Demography Division.
U.S. Monthly Vital Statistics Report, Vol 38 no 12. April 1990.

In both countries, the elevation of the total marriage rate of men over women has reversed over the period of observation. The reason probably lies in the changing age structure of the two populations. As children of the baby-boom, and by the habit of marrying men older than themselves, women constituted a larger number of candidates for marriage at the beginning of the period than did men of the same age, who were not yet ready to marry. Since the numerator of the rates (number of marriages) was the same for men and women, and since the denominator for women was larger, the female rates were lower. This made the total rate, which is the sum of rates by age, lower. The progression of the baby-boom generation into the baby-bust era (the end of the observation period) reversed this situation.

Marital Timing

The average age at first marriage declined in both Canada and the U.S. until about 1973 (Chapter 8). It then began to rise at about the same pace. American men and women, according to this measure of central tendency, marry much earlier than do their Canadian counterparts. This point is investigated more closely.

Chart 8
Mean Age of Bride and Groom at
First Marriage, Canada and United
States, 1963-1987



Sources: Statistics Canada. Vital Statistics.
U.S. Monthly Vital Statistics Report,
Vol 38 no 12, April 1990.

Graph 8 reveals that for both men and women, marriage rates are higher, both at younger ages and at older ages, in the United States than in Canada. Consequently, they are less concentrated in the middle age-range. It is regrettable that the marital behaviour of the subgroups cannot be decomposed, although the 1980 American census offers some information⁴. It shows that only 42.9% of women of Hispanic origin between 20 and 24 years old were still single in 1980, compared with 47.2% of white women in the same group. One could conclude that Hispanic women tend to marry younger. Within the 30-34 and 35-39 age groups, only between 5% and 4%, respectively, of white women were single, compared with 11% and 7% of corresponding Hispanic women. But above age 65, only 5% of Hispanic women were single whereas the proportion among white women reached 6%. It could be concluded

that Hispanic women marry later. The great majority of Hispanic persons are classified in the census as white. Although interesting, this observation does not suffice to explain the rate distribution for the total population, given the wide cultural diversity in a country with almost a quarter of a billion people. A final note is that in either country these figures do not refer to the average age at first marriage, but rather to the average age of the first married. The calculation of the average age of the first married is influenced by the age structure of the population, and would be of little use if both countries did not have similar age structures. Since this is not the case, these differences carry valuable analytical significance.

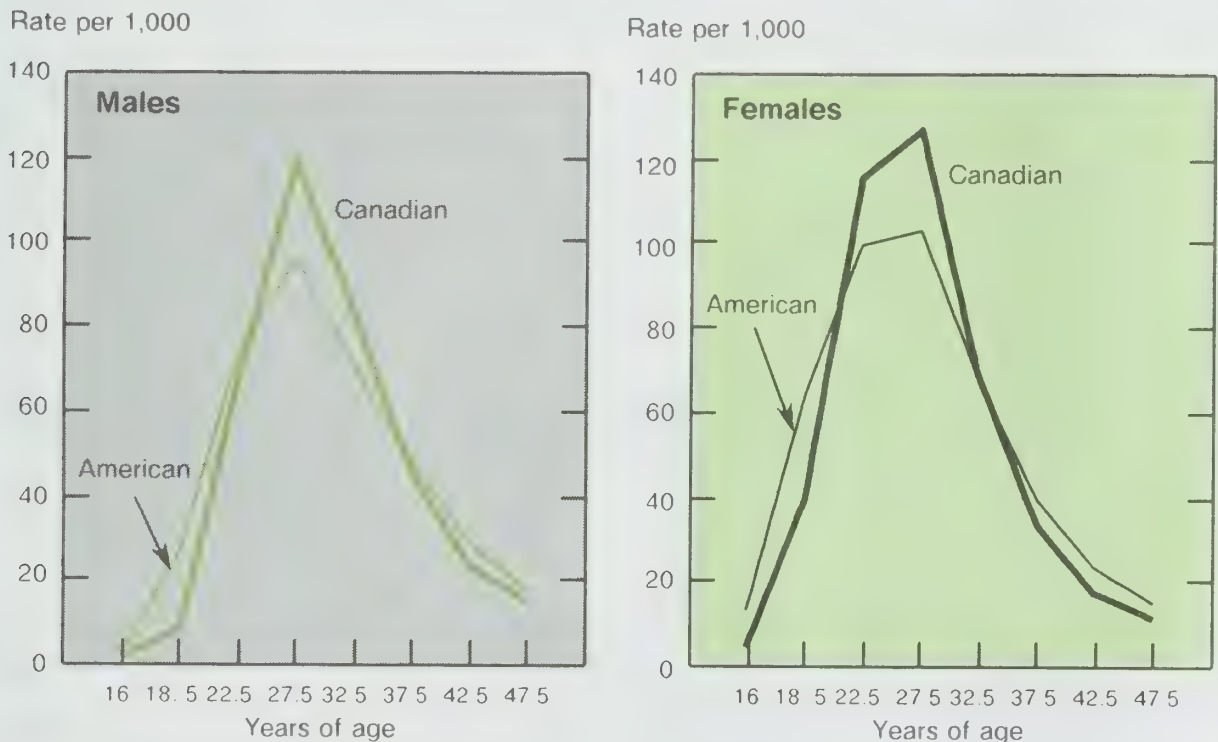
Remarriage

Remarriage (in which at least one of the spouses was once married) implies a former state of either widowhood or divorce. Widows have been scarce at the most popular ages of marriage for a long time, so remarriages tend to

⁴ The Population of the United States, 1985, Table 4A. Marital Status of the Population by Sex, Race, Spanish Origin, and Age, Single: 1940-1982, p. 157.

Chart 9

First Marriage Rate by Age and Sex, Canada and the United States, 1986



Sources: Statistics Canada. Vital Statistics.

U.S. Monthly Vital Statistics Report, Vol 38 no 12, April 1990.

be directly related to the level of divorce. The propensity to divorce is higher in the United States than in Canada and, as will be shown later, has been for a long time. Its role in remarriage is therefore also more important. Of 100 marriages in Canada in 1987, 28 involved at least one divorced person. The corresponding was 41 for the U.S. A corollary of this finding is the lower proportion of marriages between singles. This proportion went from 84% in 1970 to 67% in 1987 in Canada, and from 69% to 54% in the U.S. (Table 10).

DIVORCE

The United States has a long tradition of divorce, but in Canada, it was not until the passage of the federal Divorce Law in 1968 that divorce began to take on demographic and social importance. By that time, divorce had already acquired proverbial status in the U.S. It is not easy to describe divorce trends because only a few of the cultural, social and economic characteristics of the couples who separate are collected. We must, therefore, be satisfied with raw measures.

Table 10. The Proportion of Marriages Between Singles, Canada and the United States, 1970-1987

Year	Canada	United States
1970	84.1	68.8
1971	83.4	68.2
1972	83.2	67.1
1973	81.9	64.8
1974	80.4	63.1
1975	78.6	60.5
1976	76.9	58.9
1977	76.1	57.8
1978	75.1	57.3
1979	74.3	56.7
1980	73.5	56.5
1981	72.5	54.9
1982	71.9	55.1
1983	71.1	54.8
1984	70.1	55.0
1985	70.3	54.7
1986	70.0	54.4
1987	67.0	54.3

Source: Canada: Vital Statistics, various years.

United States: Monthly Vital Statistics, Vol. 38, No. 12 Supplement, April 3, 1990.

The Global Divorce Rate

The global divorce rate, although imprecise, permits the comparison of divorce levels and their evolution. ~~Since 1965, the divorce rate in Canada has remained relatively stable, with a slight downward trend in the late 1980s.~~ 1987 (see Part I), divorce in Canada has remained just over half the level in the United States from year after year (Table 11). Levels have been stationary with only a slight tendency to drop over the course of recent years. The strong presence of divorce in the U.S. is partly the result of divorce from second or third marriages. Whereas 88% of the divorces in Canada in 1985 involved, for both men and women, a first marriage, the American percentages were only about 73% (divorces from second marriages represented 21% and divorces from ~~third marriages 1%~~). For this reason, the median duration of marriage at the time of divorce is much longer in Canada (at 10.9 years in 1985 compared with 6.8 years in the U.S.).

Probably subnational studies have analyzed the life cycles of successive generations to see the points and ages at which marriage and divorce play out their parts. But a few simple indices, difficult to interpret, are the only tools readily available at the national level to approximate differences between the two countries in this analysis.

Table 11. Global Divorce Rate (Number of Decrees per 1,000 Married Persons) by Sex, Canada and the United States, 1970-1987

Year	Canada		United States	
	Males	Females	Males	Females
1970			14.2	14.0
1980	10.6	10.5	19.8	19.5
1981	11.4	11.3		
1982	11.7	11.6	19.4	19.0
1983	11.3	11.2	19.3	18.9
1984	10.6	10.5	19.2	18.8
1985	10.0	9.9	19.4	19.2
1986	12.5	12.4	19.0	18.8
1987	13.9	13.7	18.8	18.6

Source: Canada: Vital Statistics, Catalogue No. 84-205, annual.
United States: U.S. Department of Health and Human Services.

Marriages increased by about 51% over twenty years (from 1960 to 1980) in the United States, while divorce increased by 350%. This difference in the pace of increase is not a statistical illusion, but a clear portrayal of how this event, long more familiar in the U.S. than in many other countries, has progressed. The number of divorces per 1,000 American marriages has increased to such a point that there is currently about one divorce for every two marriages. Evidently, both events are renewable and work interdependently in both directions: more marriages lead to more divorces, and vice versa.

Canada's divorce history is quite different. Although the trend is less pronounced, a rapid increase in divorce is startlingly clear at the present time. The Canadian divorce level is now almost the same as the American level, at 477 divorces per 1,000 marriages.

Table 12. Divorces per 1,000 Marriages, Canada and the United States, 1940-1987

Year	United States	Canada
1950	231	43
1960	258	54
1970	328	154
1980	497	325
1987		

Source: Canada: Calculations based on Vital Statistics, Catalogue No. 84-205, annual.
United States: U.S. Department of Health and Human Services.

FERTILITY

About 3,900,000 children were born annually in the United States (2,900,000 white children and 600,000 black children) during the 1980s. The equivalent number in Canada has revolved around 372,000. Birth rates in both countries fluctuated slightly around 15 per 1,000 over this decade. The reproductive behaviour underlying these trends is explored here. The fertility behaviour of whites differs widely from that of other races. For this reason only that of white population will be used for a valid comparison with Canada.

The Canadian baby boom yielded a total fertility rate higher than that for the white American population (Graph 10). The Canadian rate for the 1955-1959 period was 3.9 children per woman, compared with 3.5 for the U.S. But the Canadian rate descended more steeply than the American rate, so that by 1971, both had equalized around the replacement threshold (2.1 births per woman).

The American total fertility rate began to decline faster than the Canadian rate in 1971, and gradually reached the level of 1.88 children per woman in 1977. The Canadian rate dropped again, while the American rate started to ascend in 1978. The last few years show that both rates have almost stabilized, with the American rate at a slightly higher point.

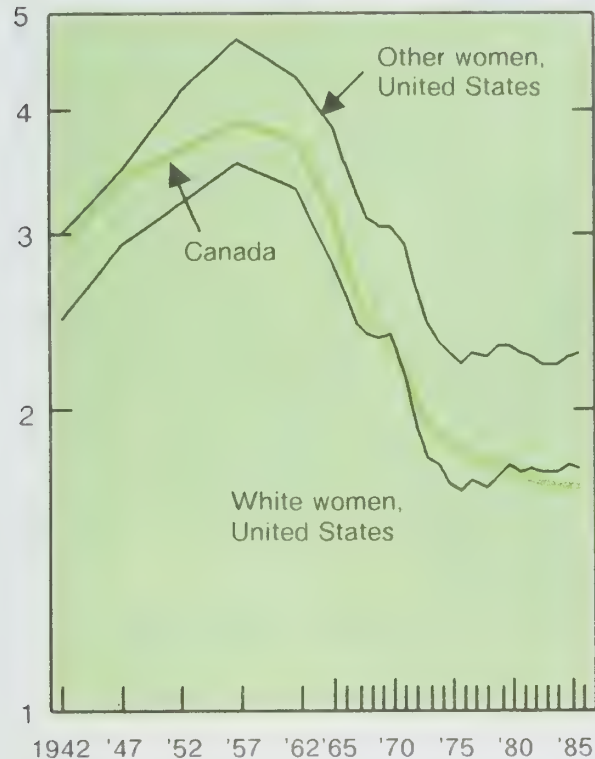
The total fertility rate is more linked to the number of births for a certain period than to a cohort's reproductive behaviour. To what extent does this cross-sectional rate reflect the reproductive behaviour of the two populations? Only a longitudinal view of cohort experience can give any indication. Graph 11 shows the cumulative number of children ever born for equivalent Canadian and American cohorts. *The number of Canadian women born since 1933 exceeded that of American cohorts. For cohorts born after 1938, this difference is minor, but Canadian fertility is still slightly higher.*

There are also differences in the timing of births. Rates at the onset of childbearing are much higher in Canada than in the U.S., but toward the end of the reproductive period, the reverse prevails. This phenomenon was most manifest in the 1960s for cohorts born in the 1930s.

The present data only permit reasonable extrapolations of reproductive behaviour for cohorts born at the end of the 1950s. The cohort at the mid-point of this quinquennial group would have been 30 years old in 1988. Indications are that this group will probably replace itself in Canada, but the prospect seems less likely in the U.S. (Graph 11). One could conclude that despite a now higher total fertility rate in the U.S., the fertility of the white population is in fact slightly lower. *This observation is reflected in the ratio of outpouring, a cross-sectional index.* There is every reason to think also that cohorts born in following years will not achieve the replacement threshold of 2.1 children per woman in either country.

Chart 10
Comparative Total Fertility Rates,
Canada and the United States,
1942-1986

Average number of children per woman



Some aspects of fertility, such as the spacing of births and the education of parents, cannot be compared because the necessary data are lacking. The total fertility rates, however, evoke some patterns of behaviour that are appreciable for their differences.

Birth Order

A fall in the fertility rate obviously implies fewer children per woman, but this can happen through diverse routes. One can imagine, for example, a part of the female population as being almost infertile, while the rest of the population continues to have several children. Table 13 was built to investigate this point. It shows that higher order-births have decreased more strongly than lower-order births in both Canada and the United States over the 1960-86 period. But women in Canada and the U.S. have not experienced identical patterns. In Canada, first-order

births have dropped more sharply than in the U.S. This trend suggests that total infertility could be more widespread in Canada. Furthermore, higher-order births are now almost nil in Canada, whereas they still have some frequency in the U.S. Rates for each birth order have declined more sharply in Canada than in the United States.

The Fertility of Unmarried Women

Fertility outside of marriage is an indicator of non-conformity to traditional social norms. An important fraction of births outside of marriage occur among young women, a large number of whom marry at some time. Fertility outside of marriage has, for this reason, always measured deviation from this social procreation norm, or the transformation of this norm over time.

Graph 12 shows that the non-white Canadian population has always had higher fertility rates than their white American counterparts. The non-white American races before 1961 must have had very high rates of unmarried fertility, since despite their smaller weight in the total American population, the American rate was higher than the Canadian one.

Chart 11
Cumulative Fertility Rate for Cohorts, White American
and Canadian Females, 1923-1958⁽¹⁾

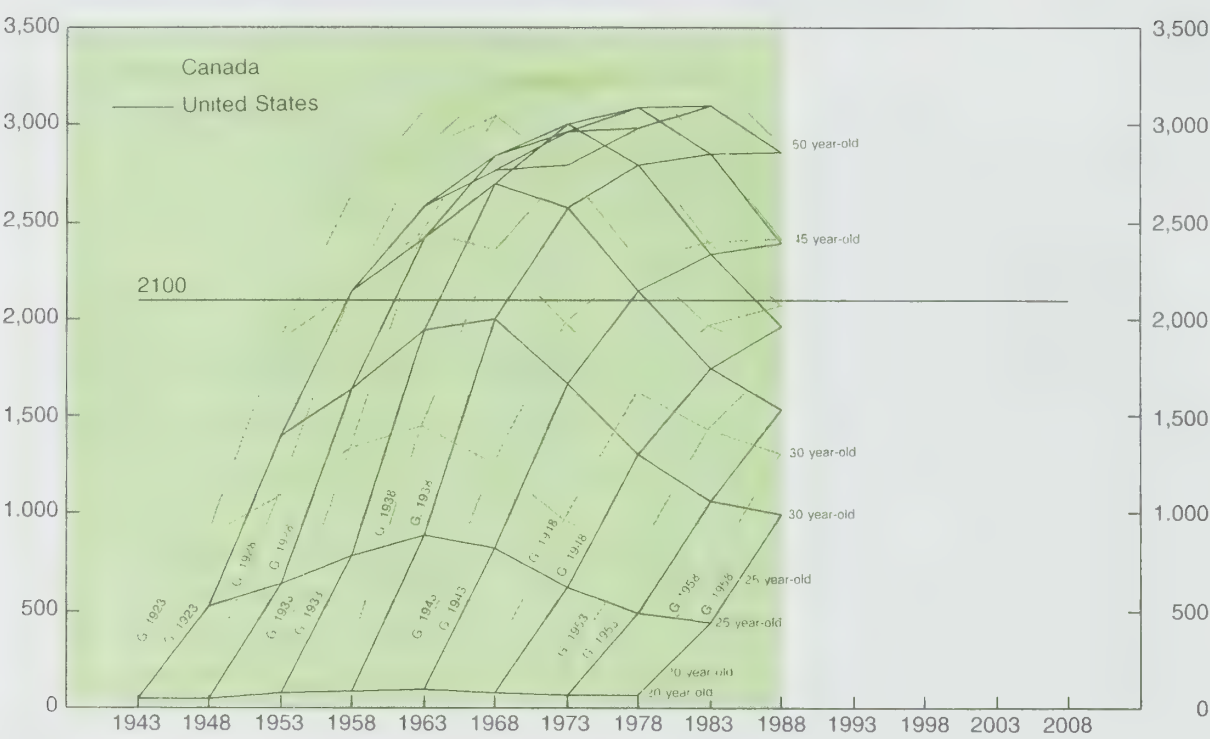


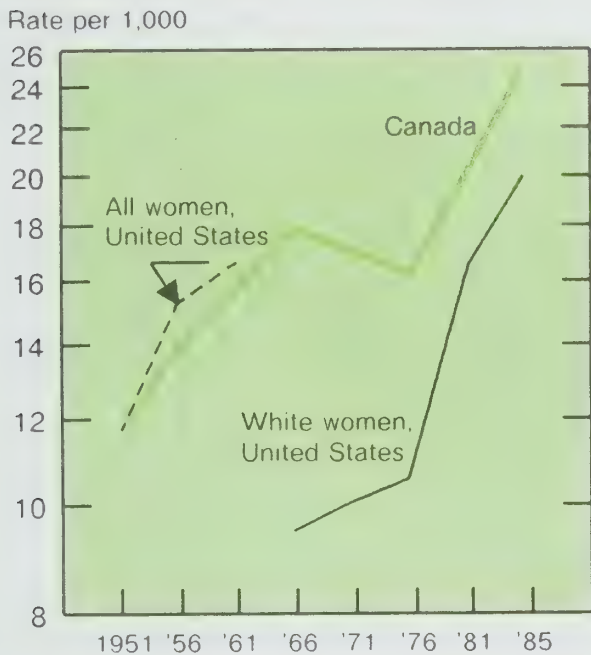
Table 13. Global Fertility Rate¹ by Birth Order, Canada and the U.S. White Population, 1960 and 1986

Birth Order	1960		1986		% Change 1960-1986	
	United States	Canada	United States	Canada	United States	Canada
1	30.8	33.9	26.0	26.3	-16	-22
2	29.2	30.3	20.9	21.6	-28	-29
3	22.7	23.3	9.6	8.9	-58	-62
4	14.1	15.3	3.3	2.6	-77	-83
5	7.5	9.4	1.1	0.7	-85	-93
6-7	6.1	9.6	0.6	0.4	-90	-96
8+	2.8	7.5	0.2	0.1	-93	-99

¹ Per 1,000.

Source: United States: National Center for Health Statistics, *Advance Report on Final Natality Statistics*, 1970 et 1986.
Canada: Calculations done in the Demography Division based on published data from the Canadian Centre for Health Information.

Chart 12
Fertility Rate per 1,000 Unmarried Women, 15 to 54, Canada and the United States, 1951-1985



Source: *Vital Statistics, Canada and the United States. Some of the rates have been calculated in the Demography Division, at Statistics Canada.*

Fertility outside of marriage became more common in both countries since the beginning of the period of observation, but it has evolved differently (Graph 12). In Canada, increases in this fertility were interrupted between 1966 and 1976, a ten-year break that can be attributed to the popularization of contraceptive use. The increase before 1966 reflects the post-war liberalization of social mores; the contemporary 1976 increase reflects the spread of common-law unions, many of which have stable characteristics conducive to procreation. Fertility outside of marriage among the U.S. white population quickly accelerated in 1976 and then began to increase at the Canadian pace in 1981.

Abortion

The legal amendment to decriminalize abortion under certain circumstances was passed in Canada in

1968. The Supreme Court of the United States declared the restrictive laws of certain states as unconstitutional in 1973. Finally, the Supreme Court of Canada declared the Canadian law on abortion as unconstitutional in 1988, and at the same time, suppressed the illegal aspect of the abortion act. The text of the 1973 Supreme Court ruling in the U.S. was modified in such a way that it is now unclear. Some States have taken advantage of this ambiguity and have returned to the interdicts of their previous laws. Other states have used their spending authority to almost entirely restrict access to abortion facilities.

Against this legal background, a comparison of abortion trends between Canada and the U.S. can speak for itself. The ratio of registered abortions to the known number of pregnancies (considered as the sum of births and abortions) provides a good measure of this practice. Because of the uncertainty behind the number of spontaneous abortions, the ratio of induced abortions to live births is used. The exclusion of the former will not bias the comparison.

Table 14 brings to light the different behaviour in the two countries. The Canadian population seems to resort to abortion less often than does the American population. In effect, just over 15% of pregnancies are terminated

Table 14. Births, Abortions and the Rate of Abortions, Canada and the United States, 1972-1986

Year	Canada			United States				
	Births	Abortions	Pregnancies Terminated by Abortion (rate per 100)	White Population			Other Populations	
				Births	Abortions	Pregnancies Terminated by Abortion (rate per 100)	Births	Abortions
1972	347,300	45,400	11.6	2,655,600	455,300	14.6	602,900	131,500
1973	343,400	48,700	12.4	2,551,000	548,800	17.7	585,900	195,800
1974	350,700	52,400	13.0	2,575,800	629,300	19.6	584,200	269,300
1975	359,300	53,700	13.0	2,552,000	701,200	21.6	592,200	333,000
1976	360,000	58,700	14.0	2,567,600	784,900	23.4	600,200	394,400
1977	361,400	60,400	14.3	2,691,100	888,800	24.8	635,600	427,900
1978	358,900	65,900	15.5	2,681,100	969,400	26.6	652,200	440,200
1979	366,000	69,000	15.9	2,808,400	1,062,400	27.4	686,000	435,300
1980	370,700	72,700	16.4	2,898,700	1,093,600	27.4	712,500	460,300
1981	371,300	72,900	16.4	2,908,700	1,107,800	27.6	720,600	469,600
1982	373,000	76,300	17.0	2,942,000	1,095,300	27.1	738,500	478,700
1983	373,700	71,500	16.1	2,904,300	1,084,400	27.2	734,700	490,600
1984	377,000	72,200	16.1	2,923,500	1,086,600	27.1	745,600	490,600
1985	375,700	69,900	15.7	2,991,400	1,075,600		769,200	512,900
1986	372,900	69,600		2,970,400			786,100	
1987	369,700							
1988	376,800							

Source: United States: National Center for Health Statistics, Advance Report on Final Natality Statistics, and the Ian Buttmacher Institute (for data on abortion).
Canada: Calculations done in the Demography Division, Statistics Canada, based on data from the Canadian Centre for Health Information.

by abortion in Canada, whereas this proportion is 10.4% among the American white population, and reaches about 14% among the non-white population. Since the fertility of the Canadian population is nearly the same as the white American population, one has to conclude that either sexual habits are not quite similar or contraception is used less often in the U.S. than in Canada.

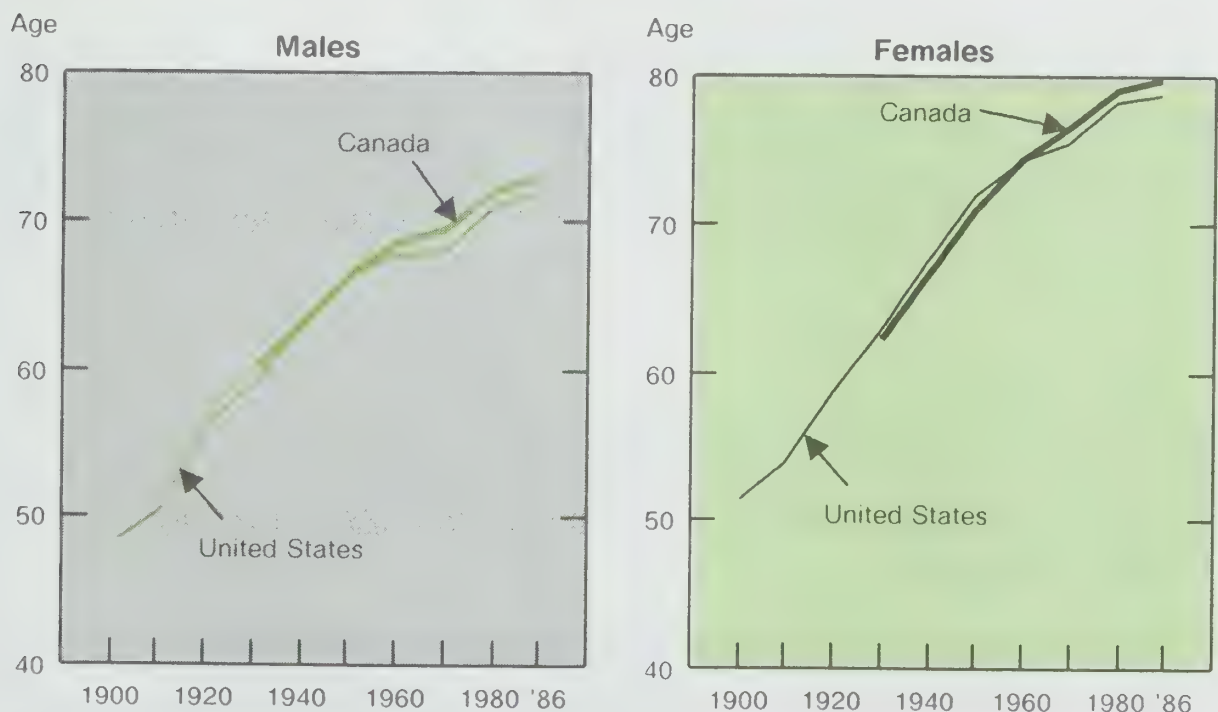
MORTALITY

Life expectancy at birth is the measure that best summarizes a nation's level of mortality. It also allows quick comparisons between countries. Graph 13 summarizes the evolution of life expectancy in Canada and the United States for as far back as reliable data are available.

It can be observed that in recent years life expectancy for males has been higher in Canada than in the United States, even when only the white population is compared. The difference between the two countries is not negligible. Since the end of World War II, it has varied around one full year. Life expectancy was calculated to be 72 years for U.S. males in 1986, and 73.04 years

Chart 13

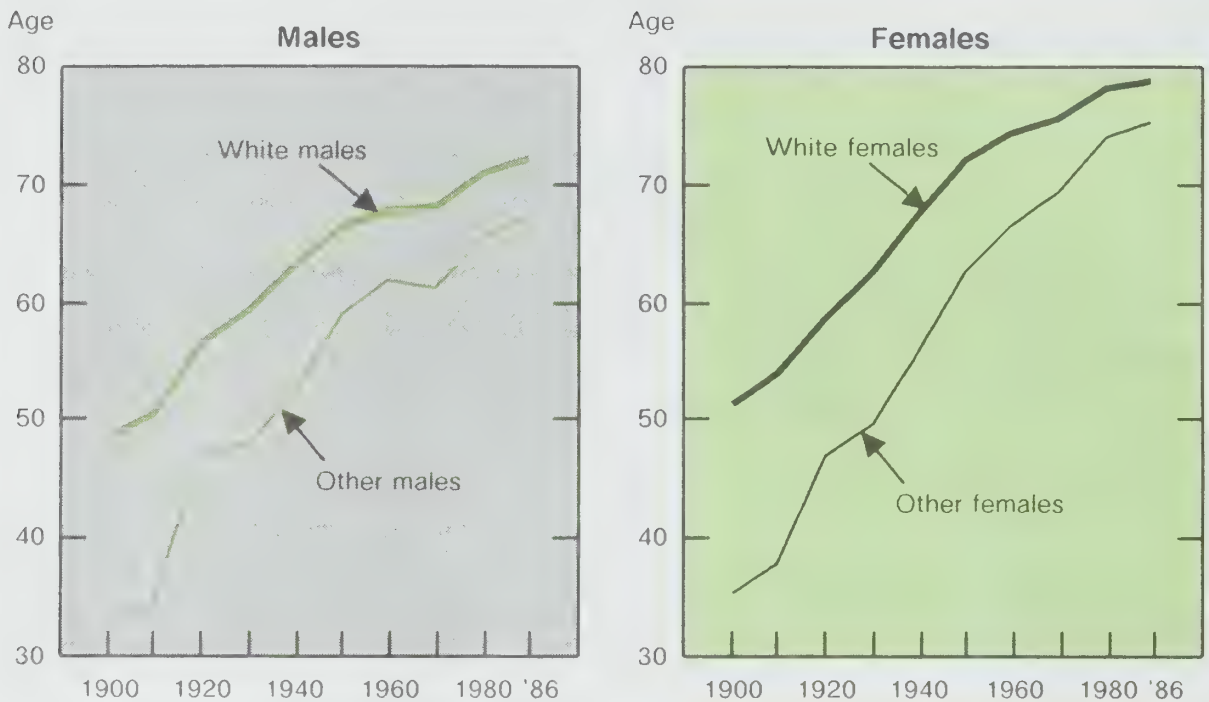
Life Expectancy at Birth, Canada and the United States (White Population Only), 1900-1986



Sources: *Vital Statistics of the United States, annual.*
Statistics Canada: Longevity and Historical Life Tables 1921-1981, Cat. 89-506
and unpublished data.

Chart 14

Life Expectancy at Birth by Race, United States, 1900-1986



Sources: Statistics Canada, Vital Statistics.

U.S. Monthly Vital Statistics Report, Vol 38 no 12, April 1990.

for Canadian males in the same year. The recent history of female life expectancy can be divided into two periods: before 1955 when life expectancy for white American women was higher than for Canadian women; and from 1955 to the present, when the reverse has prevailed. The gap is now in the range of one year (78.8 years for U.S. females and 79.7 years for Canadian females⁵).

The life expectancy of the non-white population is much lower than that in the white population. The difference is 13 years for males and 11 years for females (Graph 14). Even if this margin is large, progress in closing it has been robust since the turn of the century, when it was 15.7 years for men and 16 years for women.

To explain the differences between Canadian and American life expectancy requires detailed scrutiny of the causes of death, paying attention to the ages at which these causes strike and to the differences between populations. Such an analysis would be too lengthy for this general overview. Instead,

⁵ See footnote 6.

comparisons at one point in time of the death rates for five major causes are elaborated for 1986 (Table 15). Although differences may be minor, they are still worthy of note.

Canadians are more fortunate than white Americans because they are less likely to die from ischemic heart diseases and traffic accidents. But white Americans have the advantage when deaths from cardiovascular diseases, cancers and suicides are measured. Death rates for cardiovascular disease are much lower for the non-white population of the U.S. than for the white population. This is also true for deaths due to traffic accidents, especially among females. But the most striking difference appears in suicide. *The death rate among the non-white population, either male or female, is half that of the white American and Canadian populations.*

Comparative Evolution of the Principal Causes of Death

There are no large differences for any of the principal causes of death between the American (all races) and Canadian populations in recent history (the last 15 years). This is not surprising, since medical knowledge spreads very quickly throughout the world, and lifestyles and nutritional habits are almost identical between the two countries. The lack of difference seems surprising, however, in light of the different health insurance systems.

Deaths from Ischemic Heart Disease (ICD 410-414)

Graph 15A demonstrates that if differences in death rates are now small between Canada and the U.S., they have reached this juncture after a markedly different evolution. Fifteen years ago, the ischemic heart disease death rate was higher in the U.S. than in Canada; thus it has declined at a much faster rate.

Deaths from Cerebrovascular Disease (ICD 430-438)

Twenty years ago, deaths by cerebrovascular disease were more frequent in the U.S. than in Canada, and equalization with Canada has happened more quickly than it has for ischemic heart diseases (Graph 15B).

Deaths from Cancer

Death rates from cancer are on the rise in both Canada and the U.S., but the curves are not smooth (Graph 15C). Although differences between the two countries are small, Canadian rates are always higher. As for death from cancer of the respiratory system (Graph 15D), Canadian rates have lagged behind American rates but are progressing a little more rapidly.

Table 15. Standardized Deaths Rates (per 100,000)¹ by Causes by Death, Canada and the United States (by Race), 1986

Causes	Canada		United States			
	Males	Females	White Population		Other Populations	
			Males	Females	Males	Females
Cancers Causes 140-209 of the ICD	182.65	141.15	170.74	136.02	215.13	144.22
Ischemic Heart Disease Causes 410-414 of the ICD	188.44	124.51	191.77	132.34	153.97	129.42
Cerebrovascular Disease Causes 430-438 of the ICD	40.45	46.67	37.32	46.48	58.14	62.57
Traffic Accidents Causes E810-E825 of the ICD	22.95	9.14	29.28	11.45	28.19	
Suicides Causes E950-E959 of the ICD	21.35	5.96	20.34	5.42	11.16	

¹ Rate standardized on the structure of the Canadian population in 1976.

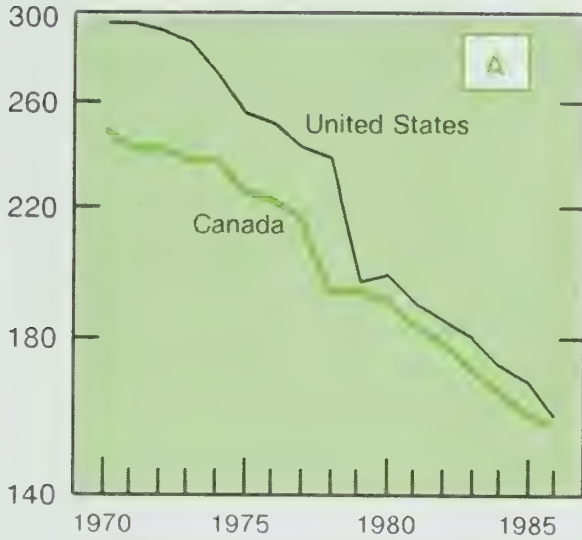
Source: United States: National Center for Health Statistics, *Advance Report on Final Mortality Statistics*, 1987.

Canada: Calculations done in the Demography Division, Statistics Canada, based on data from the Canadian Centre for Health Information.

Chart 15 **Evolution of Main Causes of Deaths, 1970-1986**

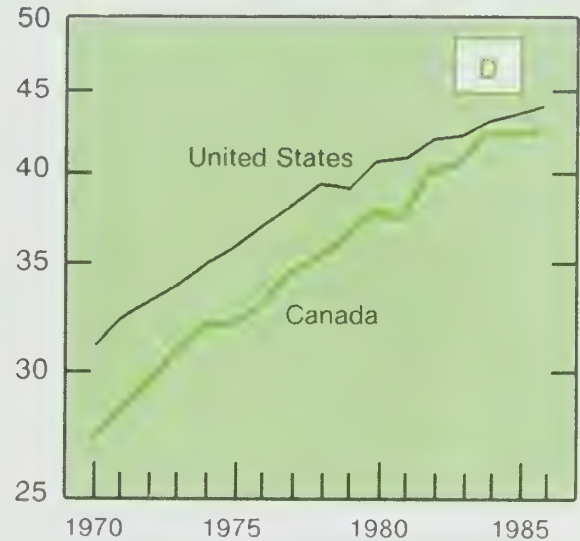
Standardized Death Rate for Ischemic Heart Disease (Causes 410-414 of the ICD)⁽¹⁾

Rate per 100,000

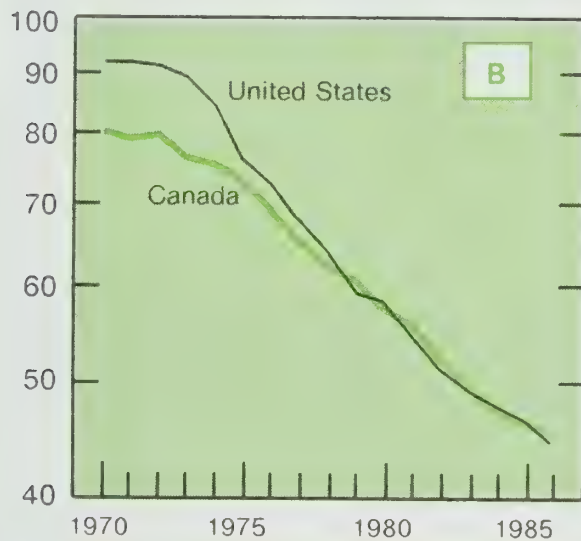


Standardized Death Rate for Cancer of the Respiratory System (Causes 160-165 of the ICD)⁽¹⁾

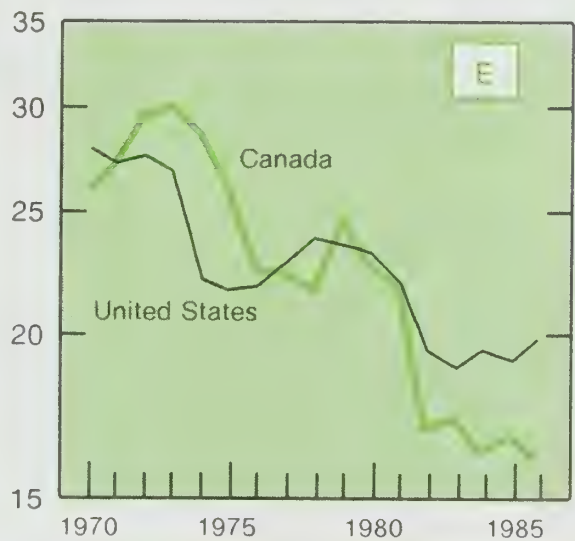
Rate per 100,000



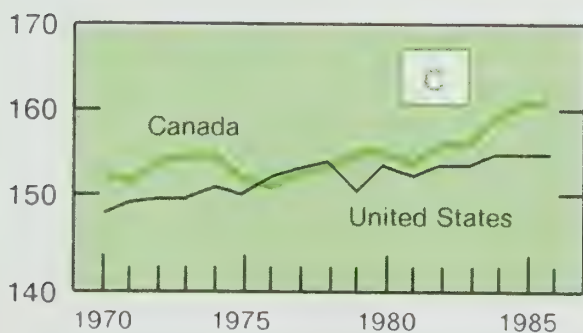
Standardized Death Rate for Cerebrovascular Disease (Causes 430-438 of the ICD)⁽¹⁾



Standardized Death Rate for Motor Vehicle Accidents (Causes E810-E825 of the ICD)⁽¹⁾



Standardized Death Rate for Cancer (Causes 140-208 of the ICD)⁽¹⁾



(1) Rates are standardized according to the structure of the Canadian population of 1976

Sources: Statistics Canada, Causes of Deaths, Catalogue no 84-203 and Unpublished Data.

Vital Statistics of the United States, Vol. 2, Mortality Part B.

Traffic Accidents

In both Canada and the U.S., deaths by traffic accidents have become less frequent over the past fifteen years (Graph 15E). Progress in the fight against other causes of death often depends on scientific discoveries more or less anticipated after long periods of research, and its effects are lasting. But deaths from traffic accidents are more sensitive to quick changes and fluctuate for unforeseeable reasons that vary by country: a change in the price of gasoline, a slackening of police vigilance, changes in law enforcement, changes in vehicle construction standards and so forth. This is why the Canadian death rates are sometimes above and sometimes below the American ones. For five years, however, the Canadian rates have been appreciably lower.

Infant Mortality

An important reason for the difference in life expectancy between the Canada and the United States lies in infant mortality rates. Some figures do not require long explanation. In 1985, the Canadian rate was 7.9 per 1,000 compared with 10.1 for the total U.S., 9.3 for the white American population, 15.8 for the population of other races, and 18.2 for the black population. A higher rate for the U.S. may seem strange but it reflects, among other things, less vigilant prenatal care, at least for that segment of the population unable to afford adequate medical insurance⁶.

Conclusion

Canada and the United States march together to the same beat in the fight against mortality, but life expectancy is still shorter for the non-white American population than for the white American population. This could explain the slight excess in American over Canadian mortality.

INTERNAL MIGRATION

No more than 54% of American people five years of age and older were living in the same residence as five years previous, according to the 1980 Census. Even if the majority of migrants had moved to residences within the same state, 21% had chosen a new state. These interstate movers accounted for 20 million persons. Mobility on this scale is not new to the United States. The same percentages appear in the 1970 and 1960 censuses. De Tocqueville, as

⁶ David Himmelstein, et. al, "A National Health Program for the U.S.", New England Journal of Medicine, 1989, 320: 102-8.

early as 1830, expressed his astonishment at the impressive mobility of the American people in savory terms⁷.

The mobility status of Canadians, on the whole, bears a strong resemblance with that of Americans as far as its intensity is concerned. The 1986 Census of Canada revealed that only 56% of people five years of age and over were living in the same residences that they occupied in 1981. Of those that had moved, nearly one million had chosen a new province.

Before the Twentieth century

Even if it does not give a total explanation of settlement patterns, migration in both Canada and the United States has displayed an east to west direction as an outcome of history. After the coastal plains were offered to the farmers and the Appalachian forests to the lumbermen, North American industrialization began. The Hudson River (extended westward by the Barge Canal) and the St. Lawrence River were two large natural channels that permitted access to the mining centres of the mid-west that were land-locked in the areas surrounding the Great Lakes. The lake waters facilitated the transportation of iron ore and coal, the two materials upon which the industrial power of the nineteenth century was built⁸. Further west, the Prairies opened up their vast plains to large-scale mechanized farming and to livestock production. No wonder that the small agricultural enterprises of the Canadian Maritimes and the New England states quickly became as outdated as the textile and steel plants, and sawmills, of the Atlantic "Fall Line".

At the same time, industrialization of the agricultural South produced a surplus of labour. Greedy for manpower, the iron, steel, railway and later automobile factories in Gary, Cleveland, Detroit, Toledo, Pittsburgh, Buffalo, Milwaukee, Sault St. Marie and Hamilton (Ontario) attracted workers from the south and eastern United States as well as from Newfoundland, the Maritimes and Eastern Quebec⁹. So the industrial heart of America, with its Canadian extension in Southern Ontario, was built. The prosperity of Southern Ontario cannot be understood outside of the development of the American Midwest, which peaked in the second part of the nineteenth century and in the beginning of the twentieth.

⁷ "In the United States a man builds a home for this retirement and sells it before the roof is installed; he plants an orchard then leaves it when the trees begin to bear fruit; he labours in the field and lets others harvest the crop; he learns a profession and abandons it; he establishes himself somewhere only to leave as soon as he can transport elsewhere his ardent desire for change". De la démocratie en Amérique, au chapitre « Pourquoi les Américains sont-ils si remuants au sein de leur prospérité. » Oeuvres complètes, Tome I -Librairie Médicis, Paris, 1951. Free translation from "Why Americans are so Fidgety in the Midst of Their Prosperity", *Democracy in America*.

⁸ Iron deposits were discovered in Marquette in 1844, in Gogebic and Vermillion in 1884, in Mesominee in 1887, and in Mesabi in 1892.

⁹ In Merigot, Lebat and Froment, in *Notions Essentielles de Géographie Économique*, Vol. II, Sirey, 1966.

Table 16. Place of Birth of the East North Central Population, United States, 1850 and 1860

	1850	%	1860	%
Total Population	3,965,269	100.0	5,715,955	100.0
Population Born in the Region	2,582,600	65.1	4,044,329	70.8
Population Born in Other Regions:	1,382,669	34.9	1,671,626	29.2
New England	171,172	4.3	224,230	3.9
Middle Atlantic	725,056	18.3	946,080	16.6
West North Central	12,794	0.3	27,496	0.5
South Atlantic	286,195	7.2	265,569	4.6
West South Central	184,634	4.7	202,798	3.5
Other Regions	2,818	0.1	5,453	0.1

Source: *Historical Statistics of the U.S.* Chapter C, Series C 15-24, p. 91.

Statistical material for this period is not abundant, but there are enough census data to support an analysis and some conclusions. Tables 16 and 17 reveal the development of the American Midwest (shown as the East North Central region). This region contained 22.5% of the U.S. population in 1850, and of this population, 35% had immigrated from other regions of the U.S. By 1860, this region contained 25% of the U.S. population. Concurrent to the building of the East North Central region, the conquest of the west can also be seen in Table 17. High percentages of “newcomers” appear in the yet small populations of the West North Central, West South Central, Mountain and Pacific regions.

After World War II

Post-war industrial developments in North America continued to displace the population centre of gravity farther away from the Atlantic coast. These developments were characterized by the implementation of new production techniques discovered by science in the war effort. They resulted in the production of new consumer goods. The most striking changes were found in new energy sources, new raw materials and in communications inventions. Technology now yielded a better return from all three. To use stylized images, one could say that the airplane replaced the railway, electric power and especially oil replaced coal, and plastics replaced steel. The telephones, televisions and computers of today connect, through sound and image, populations once isolated by vast distances.

These changes were fraught with consequence. The agricultural labour force shrunk. Industries that once had to be located close to their raw material sources and to coal deposits could now choose other locales. Milder regions became more attractive, and the demand for coastal fringe sites for oil

Table 17. Percentage of the Population Born Out-of-Region for Large Regions of the United States, 1850 and 1860

Region	1850			1860		
	Population	% of the Country	% Born in Another Region	Population	% of the Country	% Born in Another Region
New England	2,423,178	13.7	2.3	2,663,062	11.4	3.0
Middle Atlantic	4,884,300	27.5	6.5	5,898,979	25.3	5.4
East North Central	3,965,269	22.4	34.9	5,715,955	25.4	29.2
West North Central	695,231	3.9	51.9	1,702,245	7.3	55.6
South Atlantic	2,907,947	16.4	3.3	3,358,465	14.4	3.6
East South Central	2,207,677	12.4	22.8	2,538,909	10.9	19.3
West South Central	503,295	2.8	46.3	984,856	4.2	47.3
Mountain	68,484	0.4	12.7	150,116	0.6	32.9
Pacific	81,278	0.5	87.9	286,166	1.2	65.7
Total	17,736,659	100.0		23,298,753	100.0	

Source: *Historical Statistics of the U.S.: Internal Migration*, Series C 15-24, p. 91.

importing grew. Aeronautical and astronautical industries no longer had to be established in the cold and rainy areas of the Great Lakes, and petrochemical industries moved closer to harbours equipped with crude oil discharging facilities. Location was less important to other industries. Raw materials were negligible for hardware and software information processing, and auto parts were cheaper to transport than completely assembled vehicles. All this industrial change explains historical migration toward the “Sunbelt”. Figures for 1975 to 1980 illustrate a still quite active movement¹⁰.

From 1975 to 1980

Over the 1975 to 1980 period, 41 million Americans moved from one state to another. Analysis of the flows between all 50 states would be too long to do a valid portrayal any justice, so the analysis must be conducted at the regional level. This simplification is regrettable because the states that make up a region are not necessarily homogeneous with respect to the advantages they offer. Nevertheless, net migration rates that can be calculated reveal a great deal of information (Table 18).

Close to 15 million Americans moved from one region to another over the course of the period. In terms of net migration balances, some regions gained while other regions lost.

The losing regions were:

1) Middle Atlantic	-1,586,700
2) East North Central	-1,182,200
3) New England	-198,000
4) West North Central	-198,100

The gaining regions were:

1) West South Central	793,500
2) Mountain	696,800
3) Pacific	502,100
4) South Atlantic	1,021,500
5) East South Central	171,000

One region, the Middle Atlantic, lost migrants to all the other regions, while another, the West South Central, gained migrants from all the other regions. Among the other gainers, the Mountain region lost population only to the West South Central region, and the Pacific lost only in its exchanges with the Mountain and the West South Central regions. Finally,

¹⁰ J. Odland, “Sources of Change in the Process of Population Redistribution in the U.S., 1919-1980”, Environment Planning, Vol. 20, No. 6, June 1988.

Table 18. Net Migration Between the Regions of the United States, 1975-1980

New England				West North Central				West South Central			
Region	From	To	Balance	Region	From	To	Balance	Region	From	To	Balance
Middle Atlantic	313,334	192,749	120,585	New England	30,495	25,046	5,449	New England	61,826	27,231	34,595
East North Central	84,447	80,985	3,462	Middle Atlantic	75,830	47,498	28,332	Middle Atlantic	199,659	53,328	146,331
West North Central	25,046	30,495	-5,449	East North Central	319,402	254,325	65,077	East North Central	354,973	134,481	220,492
South Atlantic	140,088	291,796	-151,708	South Atlantic	125,279	154,374	-29,095	West North Central	259,652	147,588	112,064
East South Central	15,462	26,969	-11,507	East South Central	49,485	56,310	-6,825	South Atlantic	351,259	215,276	135,983
West South Central	27,231	61,826	-34,595	West South Central	147,588	259,652	-112,064	East South Central	185,552	139,629	45,923
Mountain	25,319	66,178	-40,859	Mountain	141,671	240,015	-98,344	Mountain	208,987	184,797	24,190
Pacific	68,229	146,168	-77,939	Pacific	179,419	230,018	-50,599	Pacific	332,251	258,314	73,937
Total			-198,010	Total				Total			793,515
Middle Atlantic				South Atlantic				Mountain			
Region	From	To	Balance	Region	From	To	Balance	Region	From	To	Balance
New England	192,749	313,334	-120,585	New England	291,796	140,088	151,708	New England	66,178	25,319	40,859
East North Central	202,640	278,083	-75,443	Middle Atlantic	1,151,631	379,349	772,282	Middle Atlantic	193,364	48,191	145,173
West North Central	47,498	75,830	-28,332	East North Central	747,387	375,734	371,653	East North Central	334,724	104,879	229,845
South Atlantic	379,349	1,151,631	-772,282	West North Central	154,374	125,279	29,095	West North Central	240,015	141,671	98,344
East South Central	38,695	84,838	-46,143	East South Central	311,927	370,047	-58,120	South Atlantic	162,909	107,439	55,470
West South Central	53,328	199,659	-146,331	West South Central	215,276	351,259	-135,983	East South Central	42,553	32,179	10,374
Mountain	48,191	193,364	-145,173	Mountain	107,439	162,909	-55,470	West South Central	184,797	208,987	-24,190
Pacific	119,273	371,669	-252,396	Pacific	282,074	335,711	-53,637	Pacific	589,278	468,359	120,919
Total			1,586,685	Total			1,021,528	Total			676,794
East North Central				East South Central				Pacific			
Region	From	To	Balance	Region	From	To	Balance	Region	From	To	Balance
New England	80,985	84,447	-3,462	New England	26,969	15,462	11,507	New England	146,168	68,229	77,939
Middle Atlantic	278,083	202,640	75,443	Middle Atlantic	84,838	38,695	46,143	Middle Atlantic	371,669	119,273	252,396
West North Central	254,325	319,402	-65,077	East North Central	305,084	196,762	108,322	East North Central	462,862	204,114	258,748
South Atlantic	375,734	747,387	-371,653	West North Central	56,310	49,485	6,825	West North Central	230,018	179,419	50,599
East South Central	196,762	305,084	-108,322	South Atlantic	370,047	311,927	58,120	South Atlantic	335,711	282,074	53,637
West South Central	134,481	354,973	-220,492	West South Central	139,629	185,552	-45,923	East South Central	84,654	80,988	3,666
Mountain	104,879	334,724	-229,845	Mountain	32,179	42,553	-10,374	West South Central	258,314	332,251	-73,937
Pacific	204,114	462,862	-258,748	Pacific	80,988	84,654	-3,666	Mountain	468,359	589,278	-120,919
Total				Total			170,954	Total			502,129

Source: U.S. Bureau of the Census, Special Reports, 1980.

New England and the West North Central regions for example, have been always in favour of the South and the West. In summary, one can clearly discern:

- 1) A basic westward stream;
- 2) A centrifugal movement from the West North Central, East North Central, Middle Atlantic and New England Regions directed toward the South and the West.

Canadian Migration History

Canada has no “Sunbelt”, its economic potential differs from that of the U.S. and there are solid economic linkages between the two countries. For these reasons, migration flows in Canada have not been as responsive to the enticements of technical change. Only two movements are prominent in this short migratory history.

- 1) The movement toward population concentration in Southern Ontario which is relatively recent and still in operation;
- 2) The great westward trend.

Population Concentration in Ontario

The industrial history of Canada is much more recent than that of the United States. Canada has ten times fewer people and its industry is of a different scale. Consequently, population movement toward Ontario has never had the sharpness nor the intensity of American Midwestern development in the nineteenth century. Table 19 shows that the percentage of Ontario residents born in other provinces has increased only marginally since the turn of the century.

A simple crosstabulation of place of birth by place of residence is as unsatisfactory as the movements are complex. It provides only makeshift evidence of migration. For instance, the desertion of prairie farmers for Ontario factories at the beginning of the century cannot be detected because many people who moved were themselves foreign born. The analysis is nevertheless conducted for Canada with the same yardstick used to describe the American experience. The results, and some striking features, are observed in Table 19:

- 1) The first feature is the low proportion of persons in Quebec who were born out of province. Never during the twentieth century has Quebec attracted many people from other parts of Canada, largely because of its cultural distinctiveness. Relatively few people who were born elsewhere in Quebec were born elsewhere in Canada.
- 2) In the Atlantic region, the proportion of persons born out-of-province has increased with time. But even if these increases carry some significance,

Table 19. Percentage of the Population Born in Canada but Out-of-Province, for Provinces, 1901-1981

Province	1901	1911	1921	1931	1941	1951	1961	1971	1981	Population in 1981
Newfoundland	-	-	-	-	-	1.1	2.1	3.2	4.2	567,681
Prince Edward Island	2.4	1.8	2.3	2.9	3.0	5.7	7.7	11.7	14.9	122,506
Nova Scotia	2.4	2.5	3.1	3.1	4.2	8.2	10.1	11.4	13.5	847,442
New Brunswick	3.8	4.1	5.4	5.8	5.5	7.0	9.4	11.3	13.1	696,403
Quebec	11.5	1.6	2.2	2.8	1.1	4.0	1.3	4.3	7.7	6,438,403
Ontario	4.0	3.5	4.0	4.3	5.8	10.9	9.3	10.2	10.4	8,625,107
Manitoba	31.8	20.4	15.8	12.8	12.0	12.5	12.9	13.7	13.7	1,026,241
Saskatchewan	-	29.8	22.5	17.5	14.0	12.9	12.0	11.4	13.1	968,313
Alberta	-	23.6	20.5	17.2	15.5	18.2	19.2	21.0	29.2	2,237,724
British Columbia	22.4	21.6	20.1	20.4	24.1	30.1	27.3	26.9	30.1	2,744,467

Source: Censuses of Canada, 1901-1981.

they are misleading as indicators of the region's attractiveness to other provinces because:

a) the real numbers are small;

b) many of the out-of-province moves are internal to the region.

3) Western Canada's proportion of newcomers has decreased gradually with time. This is not surprising for a region which was nearly empty but so full of promise at the beginning of the period. Such a region could not have, for a time, anything but a high concentration of foreign-born persons. The foreign-born share, even though that population was still numerous, decreased gradually as the native-born share increased. This dynamic is especially present in the typically prairie provinces of Manitoba and Saskatchewan. The two most western provinces, Alberta and British Columbia, show increasing proportions of out-of-province residents in spite of this logic. This is proof of their impressive power to attract movers from other parts of Canada.

Another way to take stock of migratory undercurrents is to draw a balance of movements over several decades (Table 20). It seems clear that the Maritimes and the Prairies are perpetual losers, while Ontario and Western Canada (especially B.C.) are the perpetual winners. They absorb the migrants from the other provinces. The sheer number of interprovincial movements is noteworthy.

Table 20. Interprovincial Migratory Balance for the Last Four Decades, Canada

Province	1951-1960	1961-1970	1971-1980	1981-1989	Total 1951-1989
Newfoundland	-9,816	-34,557	-20,840	-26,900	-92,113
Prince Edward Island	-7,938	-5,732	2,927	780	-9,963
Nova Scotia	-28,851	-43,521	4,165	2,200	-67,987
New Brunswick	-25,360	-45,277	6,441	-3,233	-67,429
Quebec	-72,877	-142,594	-234,163	-108,867	-558,481
Ontario	148,036	236,081	-96,391	200,369	488,075
Manitoba	-40,587	-64,161	-68,977	-29,880	-203,607
Saskatchewan	-87,938	-123,492	-50,603	-53,815	-315,848
Alberta	32,858	30,022	244,991	-82,746	225,125
British Columbia	93,075	192,713	216,486	107,919	610,193
Yukon and the Northwest Territories	-600	519	-4,036	-5,827	-9,944
Total Interprovincial Movements	2,962,004	3,660,061	3,849,741	2,868,282	13,340,088

Source: Unpublished data from Family Allowance Files, Estimates Section, Demography Division, Statistics Canada.

Conclusion

Both American and Canadian populations are highly mobile, and in either country a strong westward trend is evident. The disaffection for rural areas is clear in both countries (Southern farmland and the American prairies on the one hand, and the Atlantic provinces and Canadian prairies on the other). Regions of the U.S. where the migratory pull has been linked to traditional industries are losing in their population exchanges. The pull of these industries is still strong in Canada, at least for now, because equipment is more recent, more modern and flexible. Nobody can predict what future migration patterns will be in either Canada or the U.S., especially if economic links for the production of goods and services strengthen. From 1980 to 1988, through exchanges between the two countries, Canada lost 75,000 persons¹¹.

CONCLUSION

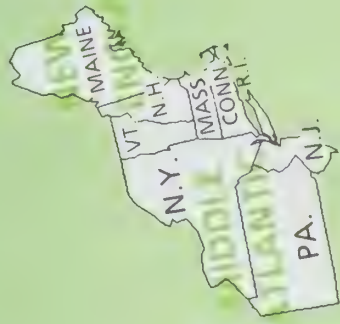
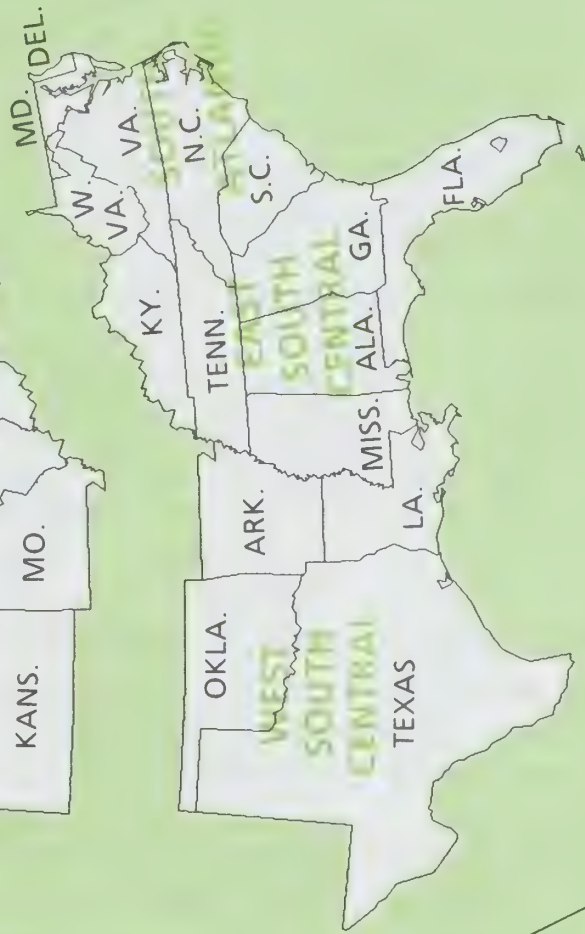
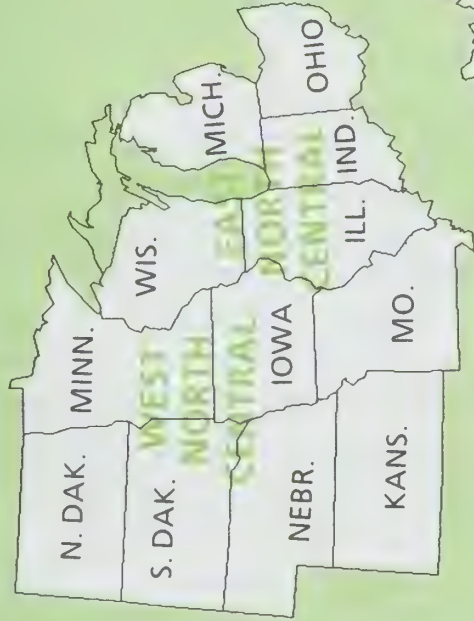
The comparison of demographic behaviour between Canada and the United States has yielded some expected insights into important similarities and differences. Among the similarities, demographic behaviour in both countries appeared to be quite sensitive to the major sociopolitical events of this Century. Rates and indices of population growth, marriage and fertility bent equally to the pressures of World War I, the Depression and World War II. Another feature common to these neighbouring countries is the pattern of initial settlement and its advancement throughout the nineteenth and twentieth centuries. Improvement in ways of living has had about the same affect on mortality in both countries.

On the other hand, even if only crude indices are analyzed, important differences emerge as a result of divergent choices made by each society at given junctures of their history, and also because of the large diversity in the American population. The differences are large in matters of divorce, marriage and abortion, as well as in the field of immigration. Divorce rates are much higher in the U.S., and the use of abortion is more frequent than in Canada. Migration flows are relatively weaker but are more even in the U.S.

Although the origin of newcomers is somewhat different, both nations share the migration pressure from the Third World. Migration trends on both sides of the border are heavily oriented toward population concentration in areas of technical advancement and fluctuating economics and toward the slow surrender of territories which can hardly sustain their populations. Population projections cannot go beyond the extrapolation of present trends, but show

¹¹ Statistics Canada: Migration Between Canada and United States, Catalogue 91-530E, Chapter 2 - Table 1.

increasing disparities in settlement into the future. The U.S. Sunbelt and the provinces and states along the Pacific coast seem to have a brilliant future. These polarizations will probably progress slowly, however, and allowance must be made for changes which are, for now, unforeseeable.



GLOSSARY¹

Census year: A neologism patterned after “fiscal year”. In Canada, it refers to the 12-month period between June 1 of one year to May 31 of the following year. It can equally designate the year during which a census is held.

Cohort: A group of individuals or couples who experience the same event during a specified period. For example, there are birth cohorts and marriage cohorts.

Cohort, fictitious: An artificial cohort created from portions of actual cohorts present at different successive ages in the same year.

Crude rate: Relates certain events to the size of the entire population. For example, the crude birth rate for Canada is the ratio of the number of births in Canada in a year to the size of the Canadian population at mid-year. Crude death rates and crude divorce rates are calculated in the same way.

Current index: An index constructed from measurements of demographic phenomena and based on the events reflecting those phenomena during a given period, usually a year. For example, life expectancy in 1981 is a current index in the sense that it indicates the average number of years a person would live if he or she experienced 1981 conditions throughout his or her life.

Dependency ratio: A ratio that denotes the dependency on the working population of some or all of the non-working population.

Depopulation: The decline in the population of an area through an excess of deaths over births (not to be confused with the depletion of an area through emigration).

Endogamy: Marriage within a specific group.

Endogenous: Influences from inside the system.

Excess mortality: In differential mortality, the excess of one group’s mortality rate over another’s (see Sex ratio).

Exogamy: Marriage outside of a specific group.

Exogenous: Influences from outside the system.

¹ For further information consult the following:

International Union for the Scientific Study of Population, **Multilingual Demographic Dictionary**, Ordina Editions, Liège, 1980; Pressat, Roland. **The Dictionary of Demography**, ed. Christopher Wilson. Oxford, England: New York, NY, USA.

Fertility: Relates the number of live births to the number of women, couples or, very rarely, men.

Fertility, completed: The cumulative fertility of a cohort when all its members have reached the end of their reproductive period.

Fertility, cumulative: Total live births from the beginning of the childbearing period until a later date.

Frequency: Frequency of occurrence within a cohort of the events characterizing a particular phenomenon.

Frequency, cumulative: Total frequency from the start of the period of exposure to risk of event up to a later date.

Infant mortality: Mortality of children less than a year old.

Intercensal: The period between two censuses.

Life expectancy: A statistical measure derived from the life table that indicates the average years of life remaining for a person at a specified age, if the current age-specific mortality rates prevail for the remainder of that person's life.

Life table: A detailed description of the mortality of a population giving the probability of dying and various other statistics at each age.

Migration: Geographic mobility between one locale and another.

Natural increase: A change in population size over a given period as a result of the difference between the numbers of births and deaths.

Neonatal mortality: Mortality in the first month after birth (part of infant mortality).

Net migration: Difference between immigration and emigration for a given area and period of time.

Nulliparous: Pertaining to a woman or a marriage of zero parity (has not produced a child).

Parity: A term used in reference to a woman or a marriage to denote the number of births or deliveries by the woman or in the marriage. A two-parity woman is a woman who has given birth to a second-order child.

Population growth: A change, either positive or negative, in population size over a given period.

Population movement: Gradual change in population status over a given period attributable to the demographic events that occur during the period. Movement here is not a synonym for migration.

Post-neonatal mortality: Mortality between the ages of one month and one year.

Prevalence: Number of persons with a certain characteristic in a given group of persons.

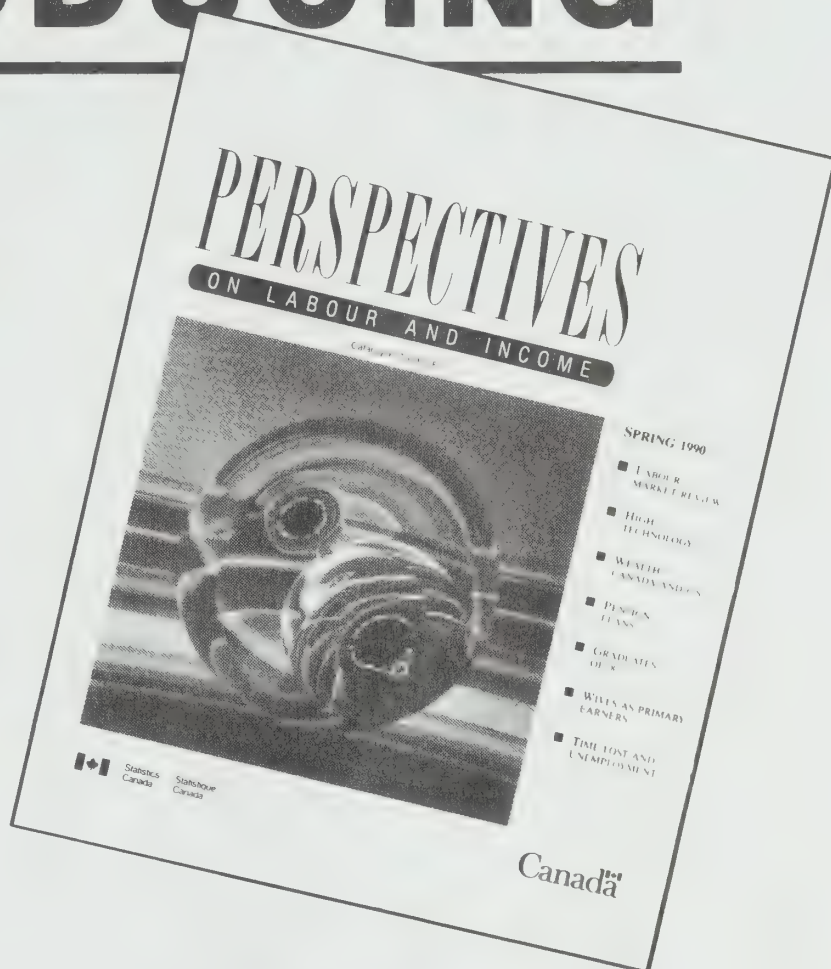
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Preface

Since the last Report on the Demographic Situation in Canada, a year of minimal change has reinforced the previously observed trends in the evolution of the population. The well-being of the nation has affirmed itself by an increase in the population. A rise in fertility and immigration has allowed it to attain almost the strongest rate of population growth in the industrialized world. The two westernmost provinces continue to display the greatest dynamism, and Quebec has unquestionably halted its fertility decline.

Always a series of question marks, the issue of immigration is the object of continual scrutiny. However, little is understood about this subject in the world context in which the economic and social fortunes of Canada play out their part. This report describes it concisely.

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Highlights

The total increase in the Canadian population in 1989 (14 per 1,000) is, second to Australia, the largest of all industrialized countries, mainly because of a jump in immigration. However, the growth is not evenly distributed; for instance, it reaches 21 per 1,000 in Alberta and 28 per 1,000 in British Columbia. For a third consecutive year, Saskatchewan's population decreased.

xxx

The fertility rate in Canada is higher than in the EEC as a whole and only in Great Britain and France is the rate slightly higher.

xxx

Fertility for Canada as a whole is rising slowly but surely because of an increase in first order births. In Quebec, the role of second order births is undeniable.

xxx

Financial incentives may have contributed to the rise in the fertility rate in Quebec, although analysis of demographic statistics does not prove conclusive.

xxx

Between the cohort born at the beginning of the century and the one born during the 1950s, the childbearing period for women shortened substantially notwithstanding the number of children born.

xxx

Nuptiality tends to increase in Canada, and the rise is attributable to single people and less so to the divorced population.

xxx

People still marry much more in Canada than a quick interpretation of the statistics would tend to suggest.

xxx

Because of an increase in the average age at death, the proportion of married elderly men rises and that of widowed elderly men decreases. The probability of remarrying stays high for divorced men until they reach age 70.

Common law unions among elderly people exist because an increasing number of them enter this life cycle with such a status.

xxx

Contrarily to the analysis of the preceding years, the divorce rate increased in 1989. This increase could however be accidental.

xxx

After three years of data collection, statistics show that AIDS deaths are attributed almost exclusively to males (94%) and that the illness progresses slowly among young people.

xxx

Often forgotten, temporary immigrants represent 150,000 people – a part of Canada's population which is in constant renewal and tends to increase.

xxx

After those difficult mid-decade years, the two most western provinces were once again in 1990 the only provinces where internal migration showed a surplus as in the beginning of the 1980s.

xxx

No Canadian area attracts more new Canadians – wherever they come from in the world, and despite their choice of residence on arrival – than Ontario.

Part I

DEMOGRAPHIC ACCOUNTS

The population count from the June 4, 1991 Census of Canada was not yet available at the time this report went to print. The Statistic Canada estimates relating to population growth presented herein were derived from 1986 Census, vital statistics (births and deaths) and immigration statistics. According to estimates based on these sources, the population on January 1, 1991 was **26,832,700** persons.

This figure probably slightly underestimates the actual number, but nonetheless suggests *total growth* in the order of 380,400 persons during 1990. Though this represents *the greatest numerical increase since 1960*, the 1990 growth rate is lower than its 1960 equivalent (1.4% versus 1.9% owing to the larger current population). Nevertheless, the 1990 growth rate is the highest since 1975, and can be attributed to a steady climb in natural increase, and to a *net migration of 174,600 which is probably the highest for the last 30 years*.

The high level of natural increase stems from an expected increase in births for the second consecutive year. The preliminary figure of 399,300 births shown in the table is likely low; the final figure for births is expected to reach 404,000. Though less spectacular than the 4.2% increase between 1988 and 1989, a 3% increase in 1989-1990 would nonetheless be remarkable.

This increase is due mainly to Quebec and Ontario, and to a lesser degree, British Columbia. The other provinces contributed very little with some births, and even registering fewer births than in the previous year (Newfoundland, Alberta, Saskatchewan). Since it is not expected that the number of deaths will differ significantly from the preliminary figures, natural increase should be in the order of 210,000 persons.

The contribution of net migration to this growth was significant, and is attributable not only to a sustained increase in entries from the low levels of 1985, but also to an estimated low level of emigration.

Financial Incentives and Fertility

As birth numbers continued their ascent in 1991 in Ontario and Quebec, and while the latter has had a pronatalist policy for the last few years while the former never has, this revives the issue of how financial incentives affect birth rates. Whether money has been a factor in the rising Quebec birth rate is all but impossible to clearly demonstrate by the figures. No one could ascertain whether fertility would have kept falling or would have climbed as it did, without these financial measures. Le Bureau de la statistique du Québec (BSQ) observed that the rise in fertility coincided with the announcement of the fiscal measures, which would mean that the revival of fertility started prior to the government's intervention.

Table 1. Population Movement, Canada, 1960-1991 (Figures in thousands and rates in percents) (Official Data)

Year	Population as of January 1	Total Growth		Natural Increase		Net Migration ¹	Components				Residual ⁴
		Number	Rate	Number	Rate		Births	Deaths	Immi- grants ²	Emi- grants ³	
1960	17,710.0	382.0	2.1	338.9	1.9	43.1	478.6	139.7	104.1	75.6	-14.6
1961	18,092.0	350.0	1.9	334.7	1.8	15.3	475.7	141.0	71.7	72.3	-15.9
1962	18,442.0	345.0	1.8	326.0	1.8	19.0	469.7	143.7	74.6	76.7	-21.1
1963	18,787.0	355.0	1.9	318.4	1.7	36.6	465.8	147.4	93.2	83.6	-27.0
1964	19,142.0	359.0	1.8	307.0	1.6	52.0	452.9	145.9	112.6	92.4	-31.8
1965	19,501.0	356.0	1.8	269.7	1.4	86.3	418.6	148.9	146.8	105.3	-44.8
1966	19,857.0	371.0	1.8	237.8	1.2	133.2	387.7	149.9	194.7	91.5	-30.0
1967	20,228.0	353.0	1.7	220.6	1.1	132.4	370.9	150.3	222.9	108.5	-18.0
1968	20,581.0	307.0	1.5	211.1	1.0	95.9	364.3	153.2	184.0	100.0	-11.9
1969	20,888.0	294.0	1.4	215.1	1.0	78.9	369.6	154.5	161.5	90.1	-7.5
1970	21,182.0	283.0	1.3	216.0	1.0	67.0	372.0	156.0	147.7	81.0	-0.3
1971	21,465.0	244.6	1.1	204.9	1.0	39.7	362.2	157.3	121.9	70.1	12.1
1972	21,709.6	232.8	1.1	184.9	0.9	47.9	347.3	162.4	122.0	63.2	10.9
1973	21,942.4	292.9	1.3	180.4	0.8	112.5	344.4	164.0	184.2	78.5	-6.8
1974	22,235.3	333.4	1.5	180.1	0.8	153.3	346.9	166.8	218.5	78.1	-12.9
1975	22,568.7	315.2	1.4	192.3	0.9	122.9	358.7	166.4	187.9	70.7	-5.7
1976	22,883.9	274.5	1.2	193.2	0.8	81.3	360.4	167.2	149.4	64.4	3.7
1977	23,158.4	259.0	1.1	193.2	0.8	65.8	360.7	167.5	114.9	61.4	-12.3
1978	23,417.4	227.1	1.0	192.0	0.8	35.1	360.2	168.2	86.3	63.5	-12.3
1979	23,644.5	267.4	1.1	197.9	0.8	69.5	366.1	168.2	112.1	54.7	-12.1
1980	23,911.9	309.4	1.3	199.2	0.8	110.2	370.7	171.5	143.1	45.2	-12.3
1981	24,221.3	262.1	1.1	200.3	0.8	61.8	371.3	171.0	128.6	43.7	23.1
1982	24,483.4	222.3	0.9	198.7	0.8	23.6	373.1	174.4	121.1	49.4	48.1
1983	24,705.7	190.1	0.8	198.7	0.8	-8.6	373.7	175.0	89.2	50.1	47.7
1984	24,895.8	194.6	0.8	201.3	0.8	-6.7	377.0	175.7	88.2	46.8	48.1
1985	25,090.4	183.6	0.7	194.4	0.8	-10.8	375.7	181.3	84.3	46.9	48.2
1986	25,274.0	218.9	0.9	188.7	0.7	30.2	372.9	184.2	99.2	49.0	20.0
1987 (PD)	25,492.9	292.9	1.1	184.7	0.7	108.2	369.7	185.0	152.1	44.0	0.0
1988 (PD)	25,785.8	311.9	1.2	186.8	0.7	125.1	376.8	190.0	161.9	36.8	0.0
1989 (PD)	26,097.7	354.6	1.3	202.6	0.8	152.0	392.7	190.1	192.0	38.3	0.0
1990 (PR)	26,452.3	380.4	1.4	205.8	0.8	174.6	399.3	193.5	212.2	37.6	0.0
1991 (PP)	26,832.7										

Notes: ¹ Difference between the annual and natural increase.
² Based on Employment and Immigration data.
³ Estimates based on Family Allowance and Income Tax files.
⁴ Sum of natural increase and immigrants minus emigrants and total growth.

(PD) Final postcensal data, based in 1986, dated from March, 1991.
(PP) Preliminary postcensal data, based in 1986, dated from March, 1991.
(PR) Revised postcensal data, based in 1986, dated from March, 1991.
The calculations are based on unrounded data.
For 1960-1986: the population consists of final intercensal estimates. Births and deaths are provided by Vital Statistics publications.
Source: Statistics Canada, Demography Division.

The family parity progression ratio is a measure used to compare the fertility of two birth cohorts or two marriage cohorts. When used in a cross-sectional manner, the interpretation of the measure is difficult. The parity progression ratios are calculated by relating the number of births of order " $n + 1$ " to the number of births of order " n " (see Table 2). The A_1 probability then represents the ratio of the second-order total fertility rate (TFR2) to the first-order total fertility rate (TRF1). The first-order total fertility rate is interpreted as being the proportion of women who gave birth to one child, while A_1 probability indicates the proportion of women who have borne a second child among women who had already given birth to one. The A_2 probability is the proportion of women who gave birth to 3 children among those who had 2, etc.

In a situation where the A_1 probability is declining while the first-order rate remains constant, the interpretation is that the tendency to bear a second child is decreasing (or is being postponed). If A_1 drops while the second-order rate rises, it means that the tendency to bear a first child is rising faster than that to bear a second. If A_1 drops while the first and second order rates both are climbing, it means that the propensity to give birth to a second child is increasing, but at a slower pace than that to give birth to a first. It is what is happening in Quebec (see the "Fertility" chapter).

In Quebec, A_1 subsided from 1987 to 1988, while TFR1 rose. The tendency to bear a second child in 1988 would have equalled that of 1987 if the TFR2 had been 0.5451 instead of 0.5211. In addition, TFR1 rose and A_1 declined between 1988 to 1989. To maintain A_1 at the 1988 level, a TFR2 of 0.5616 instead of 0.5461, would have been required in 1989.

In terms of third births, to maintain A_2 at its 1987 level, the 1988 TFR3 would have needed to be 0.1870, but it only reached 0.1715. In contrast, the 1989 A_2 returned to its 1987 level since TFR3 reached 0.1963. To maintain A_2 at its 1988 level, the TFR3 needed to be only 0.1796.

The fact remains that these values are those of a hypothetical cohort. It can be argued that a first child must have been borne before the possibility of bearing a second and a third may arise. But the financial incentive should have convinced enough one-child families to have a second, and two-child families to have a third, to the extent that the trend would have been noticeable in the parity progression ratios. Yet there is no such evidence. This may be due to the fact that the methods and indices used were not refined enough to detect the phenomenon.

By the same reasoning, the Ontario data give a picture which differs from Quebec in terms of relationship between first-order and second-order births. By applying the year " x " progression ratio to year " $x + 1$ " first-order fertility rate, it is possible to calculate the expected second-order rate. Such calculations show that to maintain A_1 from 1982 to 1987, second orders rates could have been

Table 2. Total Fertility Rate and Parity Progression Ratio, Quebec and Ontario, 1981-1989

Year	Quebec					Ontario				
	T.F.R.1	A ₁	T.F.R.2	A ₂	T.F.R.3	T.F.R.1	A ₁	T.F.R.2	A ₂	T.F.R.3
1981	0.7361	0.792	0.5833	0.386	0.2249	0.7277	0.793	0.5768	0.412	0.2379
1982	0.6943	0.784	0.5445 (0.5498)	0.378	0.2058 (0.2102)	0.7444	0.776	0.5773 (0.5903)	0.416	0.2399 (0.2402)
1983	0.6945	0.760	0.5280 (0.5445)	0.365	0.1925 (0.1996)	0.7424	0.787	0.5845 (0.5761)	0.415	0.2427 (0.2431)
1984	0.6804	0.798	0.5432 (0.5171)	0.349	0.1894 (0.1983)	0.7525	0.800	0.6022 (0.5922)	0.414	0.2495 (0.2499)
1985	0.6780	0.781	0.5293 (0.5410)	0.348	0.1841 (0.1847)	0.7468	0.800	0.5975 (0.5975)	0.415	0.2477 (0.2473)
1986	0.6844	0.744	0.5094 (0.5345)	0.344	0.1754 (0.1772)	0.7412	0.811	0.6014 (0.5930)	0.415	0.2498 (0.2498)
1987	0.6682	0.748	0.4998 (0.4971)	0.359	0.1794 (0.1919)	0.7240	0.833	0.6029 (0.5871)	0.416	0.2507 (0.2502)
1988	0.7292	0.715	0.5211 (0.5451)	0.329	0.1715 (0.1870)	0.7515	0.800	0.6011 (0.6259)	0.418	0.2513 (0.2512)
1989	0.7855	0.695	0.5461 (0.5616)	0.359	0.1963 (0.1796)	0.7919	0.778	0.6158 (0.6335)	0.423	0.2606 (0.2575)

Source: Vital Statistics, *Births and Deaths*, annual until 1986, and Canadian Center for Health Information, *Health Reports, Births*, annual for 1987-1989.

successively lower. In other words, the propensity to give birth to a second child rose from one year to the next (comparing figures in brackets with TFR figures in Table 2). This phenomenon vanished in 1988 and 1989, when first-order births rose steeply.

Ontario did not use financial incentives to achieve a higher second-order fertility rate.

The Year 1990 in the Provinces

Though the 1990 figures are provisional, a number of observations will not likely be challenged by the final results. The figures that follow give an overview of the dynamics in different parts of the country.

In 1990, the growth in three provinces was either almost non-existent (Newfoundland and Prince Edward Island) or negative (Saskatchewan). In the latter, the loss of 5,000 persons was the outcome of the last of three consecutive decreases. Since January 1, 1988, Saskatchewan's deficit has reached almost 18,000 persons. *This decrease is due to strongly negative net migration, in the order of 44,000 persons, during the past three years.* In light of this, the level of one million inhabitants reached in 1985 is probably in danger (see Table 3 and Appendix Table A1).

On the other hand, the year 1990 once again recorded high population growth in Canada's two westernmost provinces. Indeed, with a rate of 1.7%, Ontario contributed only modestly to the average national growth of 1.4%. In spite of a positive net migration still growing for the fifth consecutive year, compared to 1989, Quebec's growth rate for 1990 increased, standing at 1.1%, and yet it had only a small part in the overall growth. *In contrast, Alberta and especially British Columbia confirmed their growth leadership with rates of 2.1% and 2.8%, respectively.* In 1989, Alberta had a rate of 1.3% to British Columbia's 2.2%; definitely, their role in national population growth continues to expand. In British Columbia, migration far outpaces natural increase, whereas in Alberta, net migration, which was negative from 1983 to 1987, is now positive and has progressed rapidly during the past three years. "Go west young man?"

Canada's Demographic Position in the Industrialized World

Like other industrialized countries, Canada invests energy in maintaining population equilibrium and in promoting its citizens' well-being. It is illuminating to look at how successful we are in this field by comparing some basic indicators with those of other countries.

In spite of the difficulties in interpreting a synthetic measure, the Total Fertility Rate and its critical mark of 2.1 children per woman appears as the most appropriate tool to roughly evaluate fertility in a country, and to make basic comparisons between countries.

Table 3. Rates¹ and Summary Demographic Indicators, Canada, Provinces and Territories, 1984-1989

	Year	New-foundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
Birth Rate (per 1,000)	1984	15.0	15.6	14.3	14.6	13.5	14.7
	1985	14.9	15.9	14.3	14.3	13.3	14.7
	1986	14.3	15.2	14.2	13.8	12.9	14.7
	1987	13.7	15.4	13.8	13.5	12.7	14.5
	1988	13.2	15.4	13.8	13.5	13.0	14.6
	1989	13.6	14.9	14.1	13.4	13.8	15.1
Total Fertility Rate (number of children per woman aged 15-44)	1984	-	1.9	1.6	1.7	1.5	1.7
	1985	-	1.9	1.6	1.6	1.5	1.7
	1986	-	1.9	1.6	1.6	1.4	1.7
	1987	-	1.9	1.6	1.6	1.4	1.7
	1988	-	1.9	1.6	1.6	1.5	1.7
	1989	-	1.8	1.7	1.6	1.6	1.8
Total First Marriage Rate ¹ (per 1,000) (Men aged 17-49, Women aged 15-49)	1984 M	607.4	805.4	656.8	659.3	494.7	700.3
	F	657.1	783.6	677.3	673.4	520.6	709.8
	1985 M	554.6	722.5	651.0	658.7	487.8	695.0
	F	532.1	731.2	661.9	668.9	515.4	708.0
	1986 M	614.9	739.8	630.3	638.3	461.9	681.4
	F	600.1	764.6	649.9	653.2	460.4	698.0
	1987 M	622.7	691.4	651.1	631.8	449.2	688.0
	F	596.1	700.8	672.4	646.1	456.7	717.9
	1988 M	657.1	741.4	670.7	687.3	459.7	704.6
	F	634.2	747.0	710.3	710.8	487.7	761.2
	1989 M	689.4	795.4	673.5	678.0	460.6	727.1
	F	678.0	796.3	707.1	704.6	479.3	769.9
Rate of Natural Increase (per 1,000)	1984	8.8	6.8	6.3	7.2	6.7	7.5
	1985	8.7	7.1	5.9	6.9	6.2	7.3
	1986	8.0	6.4	5.9	6.1	5.8	7.3
	1987	7.3	6.6	5.7	5.9	5.5	7.2
	1988	6.9	7.0	5.5	5.7	5.9	7.2
	1989	7.0	6.2	5.6	5.9	6.6	7.8
Total Growth Rate (per 1,000)	1984	-1.4	9.6	8.0	5.2	3.4	12.3
	1985	-4.2	4.8	3.8	1.4	3.9	11.5
	1986	-2.1	2.4	4.7	0.4	6.2	14.2
	1987	-0.2	10.3	4.0	3.2	7.7	18.5
	1988	3.3	10.9	6.6	4.1	8.0	16.4
	1989	3.4	10.9	6.6	4.1	8.0	16.4
Net Migration Rate (per 1,000) ²	1984	-10.2	2.8	1.7	-2.0	-3.3	4.8
	1985	-12.9	-2.3	-2.1	-5.5	-2.3	4.2
	1986	-10.1	-4.0	-1.2	-5.7	0.4	6.9
	1987	-7.5	3.7	-1.7	-2.7	2.2	11.3
	1988	-3.6	3.9	1.1	-1.6	2.1	9.2
	1989	-3.6	4.7	1.0	-1.8	1.4	8.6

See notes at the end of this table.

Table 3. Rates¹ and Summary Demographic Indicators, Canada, Provinces and Territories, 1984-1989 - Continued

	Year	Mani- toba	Saskat- chewan	Alberta	British Columbia	Yukon	Northwest Territories	Canada
Birth Rate (per 1,000)	1984	15.8	18.0	18.9	15.4	22.5	28.8	15.1
	1985	16.1	18.0	18.7	15.0	19.8	27.7	14.9
	1986	15.9	17.3	18.4	14.5	20.5	28.9	14.7
	1987	15.7	16.8	17.7	14.3	19.5	29.3	14.4
	1988	15.7	16.5	17.6	14.4	20.6	29.8	14.5
	1989	16.0	16.6	17.8	14.3	18.7	27.9	14.9
Total Fertility Rate (number of children per woman aged 15-44)	1984	1.9	2.1	1.9	1.8	2.2	3.0	1.7
	1985	1.9	2.1	1.9	1.7	1.9	2.8	1.7
	1986	1.9	2.1	1.9	1.7	2.0	3.0	1.7
	1987	1.9	2.0	1.9	1.7	2.0	3.1	1.7
	1988	1.9	2.1	1.9	1.8	2.2	3.1	1.7
	1989	2.0	2.1	2.0	1.8	2.0	2.9	1.8
Total First Marriage Rate ¹ (per 1,000) (Men aged 17-49, Women aged 15-49)	1984 M	715.5	656.4	609.6	667.3	674.8	409.9	626.3
	F	723.4	671.7	663.5	695.0	658.5	468.0	647.7
	1985 M	689.7	634.3	605.3	638.0	588.3	347.5	615.4
	F	700.9	658.8	656.4	665.2	588.3	394.5	638.1
	1986 M	661.7	621.2	604.2	635.7	525.4	384.5	608.1
	F	686.7	653.7	642.8	669.8	603.9	423.6	619.9
	1987 M	659.1	624.1	603.1	662.2	492.6	342.6	605.7
	F	686.3	657.1	640.4	692.0	513.2	376.6	629.1
	1988 M	655.4	631.5	640.5	704.9	573.7	349.2	626.9
	F	699.6	676.5	695.8	756.3	695.5	343.4	657.1
	1989 M	657.3	652.8	672.9	712.3	534.6	348.5	641.9
	F	697.0	694.9	701.8	747.8	598.7	360.7	675.0
Rate of Natural Increase (per 1,000)	1984	8.0	10.3	13.4	8.2	17.9	24.2	8.1
	1985	7.9	10.1	13.1	7.6	14.6	23.8	7.7
	1986	7.6	9.4	12.8	7.2	15.7	24.4	7.5
	1987	7.7	9.1	12.1	6.9	15.3	25.7	7.2
	1988	7.3	8.6	11.9	6.9	16.2	27.0	7.2
	1989	7.8	8.7	12.3	6.9	15.7	24.8	7.7
Total Growth Rate (per 1,000)	1984	9.2	10.2	0.5	10.3	21.8	30.1	7.8
	1985	7.0	3.8	8.5	7.1	4.3	15.6	7.3
	1986	6.2	2.7	4.8	8.8	29.8	-9.6	8.7
	1987	6.0	1.4	2.7	17.3	20.7	3.9	11.5
	1988	2.4	-6.1	13.0	21.8	28.3	11.6	12.1
	1989	2.4	-6.1	13.1	21.8	29.5	12.2	12.1
Net Migration Rate (per 1,000) ²	1984	1.2	-0.1	-12.9	2.1	3.9	5.9	-0.3
	1985	-0.9	-6.3	-4.6	-0.5	-10.3	-8.2	-0.4
	1986	-1.4	-6.7	-8.0	1.6	14.1	-34.0	1.2
	1987	-1.7	-9.1	-12.1	10.4	5.4	-21.8	4.3
	1988	-4.9	-8.6	-11.9	14.9	12.1	-15.4	4.9
	1989	-5.4	-8.7	0.8	14.9	-15.7	-12.6	4.4

See notes at the end of this table.

Table 3. Rates¹ and Summary Demographic Indicators, Canada, Provinces and Territories, 1984-1989 - Continued

	Year	New-foundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
Population Aged 65 + as a Percentage of the Total Population on June 1	1984	8.3	12.5	11.4	10.6	9.5	10.4
	1985	8.6	12.6	11.7	10.9	9.7	10.7
	1986	8.8	12.7	11.9	11.1	10.0	10.9
	1987 (PD)	9.0	12.7	12.1	11.4	10.2	11.1
	1988 (PD)	9.2	12.8	12.2	11.6	10.5	11.3
	1989 (PD)	9.3	12.7	12.3	11.7	10.7	11.5
	1990 (PR)	9.4	12.8	12.4	11.9	10.9	11.6
Life Expectancy Rate at Birth	1981 M	72.0	72.8	71.0	71.1	71.1	72.3
	F	78.7	80.5	78.4	79.2	78.7	79.0
	1988 M	73.1	73.1	72.5	73.0	72.3	73.7
	F	79.3	80.9	79.6	80.2	79.8	80.0
	1989 M (P)	73.3	72.9	72.6	73.3	72.7	74.0
	F (P)	79.4	81.1	79.7	80.3	80.3	80.2
Infant Mortality Rate (per 1,000)	1984	9.2	8.2	7.8	7.8	7.3	7.6
	1985	10.8	4.0	7.9	9.6	7.2	7.3
	1986	8.0	6.7	8.4	8.3	7.1	7.2
	1987	7.6	6.6	7.4	7.0	7.1	6.6
	1988	9.3	9.1	6.5	7.2	6.5	6.6
	1989	8.2	6.2	5.8	7.1	6.8	6.8
Rate of Pregnancies Terminated (per 1,000 women 15-44 years of age)	1984	2.7	0.4	8.2	1.6	5.9	13.1
	1985	2.9	0.4	8.0	1.8	6.9	12.5
	1986	2.5	0.4	8.0	2.0	7.5	12.1
	1987	3.3	1.2	8.0	2.1	7.3	12.4
	1988	3.2	2.3	8.0	2.7	5.5	12.6
	1989	3.2	0.3	9.3	2.9	5.2	13.6
Total Divorce Rate (per 10,000 marriages)	1984	-	-	-	-	-	-
	1985	-	-	-	-	-	-
	1986	-	-	-	-	-	-
	1987	-	-	-	-	-	-
	1988	-	-	-	-	-	-
	1989	-	-	-	-	-	-

See notes at end of this table.

Table 3. Rates¹ and Summary Demographic Indicators, Canada, Provinces and Territories, 1984-1989 - Concluded

	Year	Mani- toba	Saskat- chewan	Alberta	British Columbia	Yukon	Northwest Territories	Canada
Population Aged 65 + as a Percentage of the Total Population on June 1	1984	12.2	12.4	7.6	11.4	3.5	2.8	10.2
	1985	12.4	12.5	7.9	11.7	3.4	2.7	10.4
	1986	12.5	12.7	8.1	12.1	3.8	2.9	10.6
	1987 (PD)	12.7	12.9	8.4	12.5	3.7	2.9	10.9
	1988 (PD)	12.9	13.1	8.6	12.7	3.6	2.9	11.1
	1989 (PD)	13.1	13.4	8.8	12.9	3.8	2.8	11.3
	1990 (PR)	13.3	13.7	8.9	13.0	3.8	2.9	11.5
Life Expectancy Rate at Birth	1981 M	72.2	72.4	72.0	72.6	-	-	71.9
	F	78.8	79.6	79.1	79.6	-	-	79.0
	1988 M	73.4	74.2	73.9	74.0	-	-	73.3
	F	80.2	81.0	80.3	80.5	-	-	80.0
	1989 M (P)	73.6	74.3	74.3	74.4	-	-	73.6
	F (P)	80.5	81.3	80.7	80.8	-	-	80.3
Infant Mortality Rate (per 1,000)	1984	8.6	9.4	9.6	8.6	13.5	17.3	8.1
	1985	9.9	11.0	8.0	8.1	10.8	16.7	8.0
	1986	9.2	9.0	9.0	8.5	24.8	18.6	7.9
	1987	8.4	9.1	7.5	8.6	10.5	12.5	7.3
	1988	7.8	8.4	8.3	8.4	5.8	10.3	7.2
	1989	6.6	8.0	7.5	8.2	4.2	16.2	7.1
Rate of Pregnancies Terminated (per 1,000 women 15-44 years of age)	1984	9.1	5.4	11.2	16.7	14.7	18.4	10.2
	1985	9.2	5.1	11.0	16.4	14.8	19.7	10.2
	1986	10.2	4.6	10.5	16.5	18.9	19.2	10.2
	1987	10.5	5.4	9.2	16.5	21.3	18.7	10.2
	1988	11.2	5.7	10.4	15.4	16.9	21.1	9.9
	1989	10.9	6.0	10.8	15.4	19.3	19.2	10.3
Total Divorce Rate (per 10,000 marriages)	1984	-	-	-	-	-	-	3,306
	1985	-	-	-	-	-	-	3,121
	1986	-	-	-	-	-	-	3,799
	1987	-	-	-	-	-	-	4,314
	1988	-	-	-	-	-	-	3,748
	1989	-	-	-	-	-	-	3,982

¹ Rates are calculated for the calendar year.

² Due to the use of different calculation methods and data, the results for 1986 and onward are not entirely comparable to the results of previous years.

For 1981 to 1987, see 1988 Report.

Table 4. Main Demographic Indicators, 1990 - European Economic Community and Canada¹

Country	Average Population, 1990 (in thousands)	Fertility		Marriages		Divorces		Mortality			
		Total Fertility Rate ²	% of Births out of Wedlock	Marriages (in thousands)	Crude marriage Rate ³	Divorces (in thousands)	Divorces per 1,000 persons	Infant Deaths	Infant Mortality Rate ⁴	Life Expectancy at Birth ⁵	
										Males (in years)	Females (in years)
Belgium	9,962.2	1.6*	--	64.7	6.5	20.3	2.0	982	7.9	72.4*	79.0*
Denmark	5,139.9	1.7	46.0 ⁶	31.3	6.1	13.7	2.7	492 ⁶	8.0 ⁶	72.0*	77.7*
Germany	79,346.5	1.5*	15.5 ⁶	516.1	6.5	176.7 ⁶	2.2 ⁶	6,582 ⁶	7.5 ⁶	72.6*	79.0*
Greece	10,123.0	1.5	2.0	55.0	5.4	6.0	0.6	1,000	10.0	72.6	77.6
Spain	38,959.2	1.4	--	212.8	5.5	23.1 ⁶	0.6 ⁶	3,024	7.6	73.2*	79.8*
France	56,421.4	1.8	28.2 ⁶	287.9	5.1	105.3 ⁶	1.9 ⁶	5,473	7.2	72.7	80.9
Ireland	3,503.0	2.2	12.6 ⁶	17.5	5.0	--	--	433	8.2	71.0*	77.0*
Italy	57,657.8	1.3	6.3	312.6	5.4	25.4	0.4	4,848	8.6	73.2	79.7
Luxembourg	397.5	1.6	12.9	2.3	6.1	0.9 ⁶	2.3 ⁶	36	7.3	70.6	77.9
Netherlands	14,951.1	1.6	11.4	95.7	6.4	28.5	1.9	1,399	7.1	73.8	80.1
Portugal	10,365.0	1.4*	14.7	71.7	6.9	9.2	0.9	1,279	11.0	70.9*	77.9*
United Kingdom	57,395.0	1.8 ⁶	27.9	392.0 ⁶	6.8 ⁶	164.3 ⁶	2.9 ⁶	6,300	7.9	73.1	78.7
E.E.C.	344,203.6	1.6	17.8 ⁶	2,057.4	6.0	573.3	1.7	31,800	7.8	72.8	79.2
Canada	26,642.5 ⁷	1.8	23.1	190.6 ⁶	7.3	80.7 ⁶	3.1 ⁶	2,795 ⁶	7.1 ⁶	73.6 ^{1,6}	80.4 ^{1,6}

¹ Preliminary results or country estimates.

² Number of children per woman.

³ For 1,000 persons (average population).

⁴ For 1,000 live births.

⁵ 1985 for Greece; 1985-1987 for Luxembourg; 1987 for Spain, 1988 for Italy, 1989 for Belgium, Denmark, West Germany, Ireland, the United Kingdom, and the European Economic Community.

⁶ 1989.

⁷ Average of January 1st, 1989, and January 1st, 1990.

* EUROSTAT estimates.

Table 5. Selected Demographic Reference Points for Canada and Other Industrialised Countries, 1989

Country	Total Fertility Rate	Life Expectancy at Birth		Proportion of Population Aged 65 and Over	Natural Increase (per 1,000)	Total Growth (per 1,000)	Infant Mortality Rate (per 1,000 Live Births)
		Male	Female				
Europe	1.55 ³	72.8	79.2	N/A	1.8	4.6 ³	7.8 ³
Sweden	1.83	74.2	80.2 ⁷	N/A	2.8	4.0	6.1 ⁷
United States	1.87 ⁷	71.5 ¹	78.3 ¹	12.3 ⁴	7.1 ⁴	9.8 ⁴	9.7 ²
Australia	1.84	73.1 ⁵	79.5 ⁴	11.2 ⁴	7.2 ⁶	16.2 ⁵	8.7
Japan	1.66	75.9	81.8 ⁴	11.6	3.9	3.8	4.4
Canada	1.76	73.8	80.4	11.4	8.0	14.4 ³	7.1

N/A Not available.

¹ Based on population from all racial origins, 1988.

² Preliminary, 1991.

³ 1990.

⁴ 1988.

⁵ June 30, 1988 - June 30, 1989.

⁶ June 30, 1989 - June 30, 1990.

⁷ 1987.

Source: Eurostat - *Demographic Yearbooks*, United Nations and specific countries.

Table 6. Natural Population Movement, in 1990 - Economic European Community and Canada¹

Country	Population 1-1-1991 ² (in thousands)	Births (in thousands)	Deaths (in thousands)	Difference between Births and Deaths (in thousands)	Net Migation (in thousands)	Total Increase (in thousands)	Rate per 1,000 persons				
							Birth	Death	Natural Increase	Net Migration	Total Growth
Belgium	9,976.7*	123.7	104.8	18.9	10.0*	28.9	12.4	10.5	1.9	1.0	2.9
Denmark	5,146.5	63.5	61.0	2.5	8.3	10.9	12.4	11.9	0.5	1.6	2.1
Germany	79,700.5	898.4	910.7	-12.4	600.0	587.6	11.3	11.5	-0.2	7.6	7.4
Greece	10,200.0	100.0	93.5	6.5	147.5	154.0	9.9	9.2	0.6	14.6	15.2
Spain	38,993.8	399.3	334.6	64.7	--	69.3	10.2	8.6	1.7	--	1.8
France	56,539.6	763.0	526.6	236.4	--	236.4	13.5	9.3	4.2	--	4.2
Ireland	3,511.8*	53.0	31.8	21.1	-15.3*	5.8	15.1	9.1	6.0	-4.4*	1.7*
Italy	57,739.2	563.0	536.7	26.3	128.8	155.1	9.8	9.3	0.5	2.2	2.7
Luxembourg	380.5	4.9	3.8	1.2	2.0*	3.2	13.0	9.9	3.1	5.3*	8.4
Netherlands	15,009.6	197.9	128.8	69.1	59.6	128.7	13.2	8.6	4.6	4.0	8.6
Portugal	10,393.1	116.4	103.1	13.3	--	56.1	11.2	9.9	1.3	--	5.4*
United Kingdom	57,478.0	799.0	641.0	158.0	--	162.0	13.9	11.2	2.8	--	2.8*
BEC	345,069.3	4,082.1	3,476.4	605.6	992.4	1,598.0	11.9	10.1	1.8	2.9	4.6
Canada	26,832.7	399.3	193.5	205.8	174.6 ⁴	380.4	14.9	7.2	7.7	4.2	14.4

¹ Preliminary results or country estimates.

² For Italy, only resident population is included in the total.

³ The net migration for each individual country includes migratory exchanges within the European Community, as well as with the rest of the world. Net migration for the European Community includes only the migratory exchanges with the rest of the world, due to the balancing effects of the migratory exchanges within the European community itself.

⁴ Difference between the number of landed immigrants recored by the Department of Employment and Immigration, and the estimated number of immigrants.

* EUROSTAT estimates.

Firstly, Tables 4 to 6 show that *fertility in the industrialized world is below the replacement level* except for Ireland, where the index is declining and approaching replacement level. At present, in Europe the countries with the lowest rates are the mediterranean peninsula (Italy, 1.31; Spain, 1.36; Portugal, 1.43). These southern areas had maintained high fertility while Northern European countries (Sweden, Germany, for example) were reaching the low levels at which the mediterranean countries stand today.

Among countries or regions, *Canada's index of 1.76 is above the EEC as a whole (1.55)*, where only Great Britain and France reach a higher level (1.8). It also surpasses Japan (1.66) but is below the United States and Australia (1.8).

As Canada's population is young, its death rate is low, and *the natural growth of its population is the highest in the industrialized world (8 per 1,000)*. While only marginally higher than that of the United States and Australia, its natural growth is *four times that of the EEC as a whole*.

Canada's total growth, in which international migration played a major role, reached 14 per thousand in 1989. Only Australia's total growth surpassed it, and then only slightly. There, growth by migration is greater than natural growth, as is the case in all countries of the EEC (see Table 6).

In ranking infant mortality in the world, Canada remains just behind Sweden, as The World Health Organization has questioned the validity of the Japanese rates (4.4) which, if unchallenged, would place them second. Canada is slightly ahead of the EEC as a whole, and significantly ahead of the United States and Australia.

Canada's expectation of life at birth is consistent with other demographic indicators. Only in Sweden and Japan would the male life expectancy be higher. No EEC country has a higher figure, and the United States is slightly lower. The same is true of female life expectancy, with the exception of France where it is slightly higher.

NUPTIALITY

The number of marriages in 1989 rose by 2,912 from 1988, representing a minimal increase of 1.6%. *This year again 79% of this increase was due to marriages between singles (2,301)*. In contrast, the proportion of all marriages accounted for by remarriages, declined slightly. The majority of persons who remarry at present do so subsequent to the break-up of a previous marriage by divorce. It is notable that the number of marriages in which neither spouse was marrying for the first time increased steadily since 1969 when the divorce law was amended. This proportion however, for a third year in a row, stands at 14% with a slight tendency to decline. Curiously, among remarriages

Table 7. Marriages, First Marriages, and Remarriages, Canada, 1967-1989

Year	Number of Marriages	Number of First Marriages		Marriages in which at least One Spouse had been previously Married		Number and Proportion of Remarriages in which the Two Spouses had been previously Married	
		Males	Females	Number	%	Number	%
1967	165,879	151,883	151,488	20,417	12.3	7,970	39.0
1968	171,766	157,309	156,783	21,133	12.3	8,307	39.3
1969	182,183	162,853	162,690	27,494	15.1	11,329	41.2
1970	188,428	167,267	167,421	29,975	15.9	12,193	40.7
1971	191,324	168,944	169,072	31,698	16.6	12,934	40.8
1972	200,470	176,537	177,155	33,582	16.8	13,666	40.7
1973	199,064	173,355	174,135	36,047	18.1	14,591	40.5
1974	198,824	170,678	172,107	39,063	19.6	15,800	40.4
1975	197,585	167,022	168,817	42,300	21.4	17,031	40.3
1976	186,844	155,679	157,412	43,098	23.1	17,499	40.6
1977	187,344	154,906	156,854	44,750	23.9	18,178	40.6
1978	185,523	151,884	154,016	46,254	24.9	18,892	40.8
1979	187,811	152,731	154,982	48,309	25.7	19,600	40.6
1980	191,069	154,138	156,918	50,600	26.5	20,422	40.4
1981	190,082	151,978	154,506	52,340	27.5	21,340	40.8
1982	188,360	149,419	152,825	52,979	28.1	21,438	40.5
1983	184,675	144,960	147,968	53,342	28.9	22,080	41.4
1984	185,597	144,674	147,907	55,436	29.9	23,177	41.8
1985	184,096	144,009	146,718	54,632	29.7	22,833	41.8
1986	175,518	137,665	138,523	52,678	30.0	22,170	42.1
1987	182,151	138,454	139,324	60,106	33.0	26,529	44.1
1988	187,728	142,956	143,943	61,665	32.8	26,892	43.6
1989	190,640	145,733	146,242	62,276	32.7	27,029	43.4

Source: Vital Statistics, *Marriages and Divorces*, Catalogue 84-205 Annual from 1967 to 1986 and Canadian Centre for Health Information, *Marriages*, Annual from 1987 to 1989.

the proportion of unions in which both spouses were remarrying was stable. Since 1969, this proportion climbed only from 39% to 44%. This slight increase is explained by the number of divorced persons into the marriage market. It remains that, for reasons related to age and/or experience, an important share of divorced persons married each other.

Once again the total national first marriage rate is still increasing, but the rise is much less significant than the one observed between 1987 and 1988. On the other hand, this growth among women resulted from increases in five provinces only, while other provinces had a slight decrease. As usual, the province of Quebec had Canada's lowest index; and it has remained stable compared to last year.

Table 8. Total First Marriage Rate (number per 1,000), Canada, Provinces and Territories, 1987-1989

Province	1987		1988		1989	
	Males ¹	Females ²	Males ¹	Females ²	Males ¹	Females ²
Newfoundland	623	596	657	634	689	678
Prince Edward Island	691	701	741	747	795	796
Nova Scotia	651	672	671	710	674	707
New Brunswick	632	646	687	711	678	705
Quebec	449	457	460	488	461	479
Ontario	688	718	705	761	727	770
Manitoba	659	686	655	700	657	697
Saskatchewan	624	657	632	677	653	695
Alberta	603	640	640	696	673	702
British Columbia	662	692	705	756	712	748
Yukon	493	513	574	695	535	599
Northwest Territories	343	377	349	343	349	361
Canada	606	629	627	657	642	675
Canada without Quebec	661	689	685	713	704	741

¹ Aged 17-49.

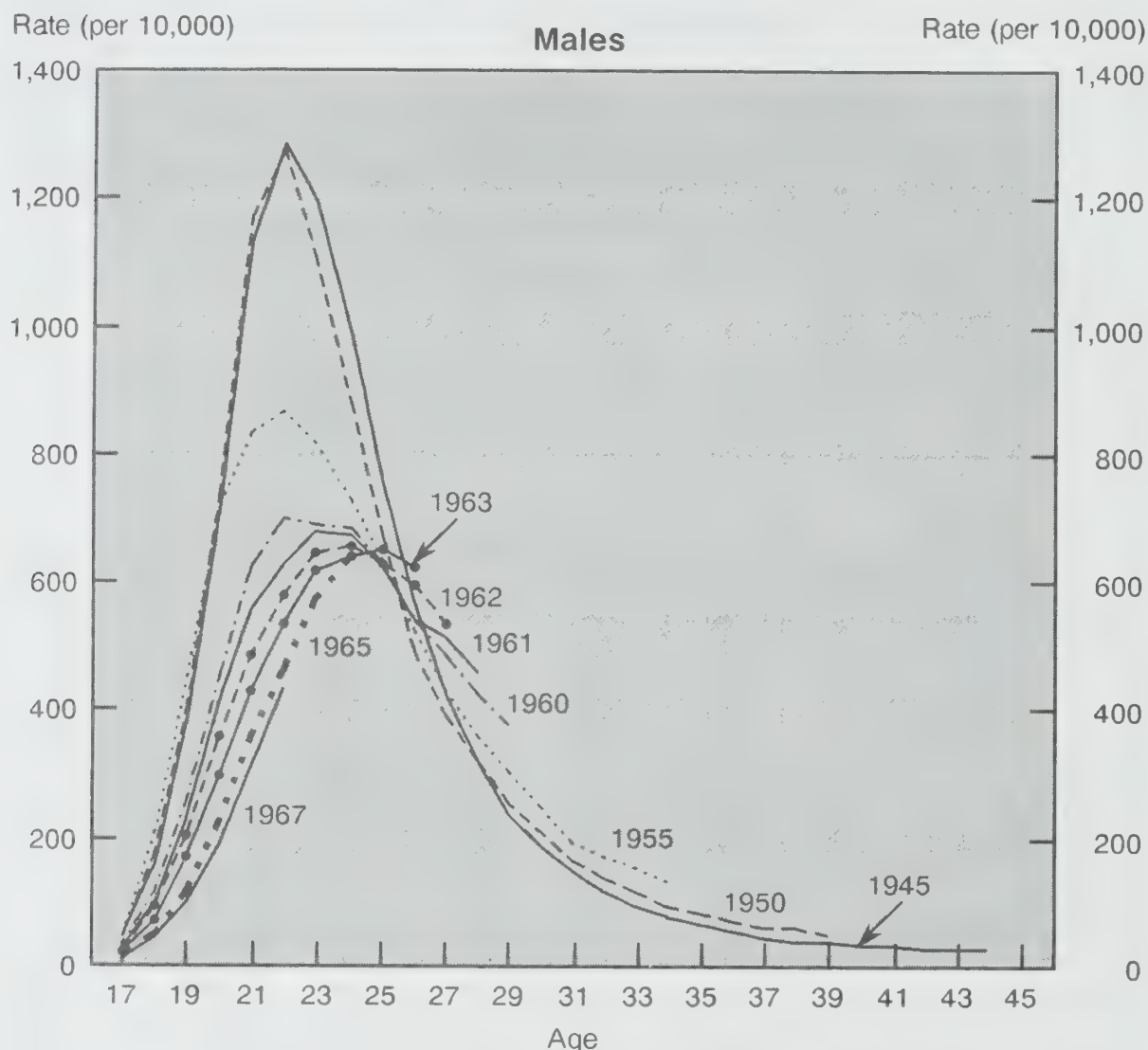
² Aged 15-49.

Source: Canadian Centre for Health Information, *Marriages*, annual.

Measurement of Nuptiality

For several years, this report has brought changes in the timing of first marriage to the attention of our readers. Using marriage frequencies, it showed that nuptiality was dropping consistently among younger age groups, while rising among older groups. This differentiation continues today, and is most likely due to the increasing popularity of common-law unions among younger groups. Thus in 1989, first marriage rates still declined among men below age 25, but increased for every other age. The same is true for women, with a two-year time lag (see Table A2 and A3 in the appendix).

Figure 1
Age-specific First Marriage Rates for Recent Cohorts, Canada



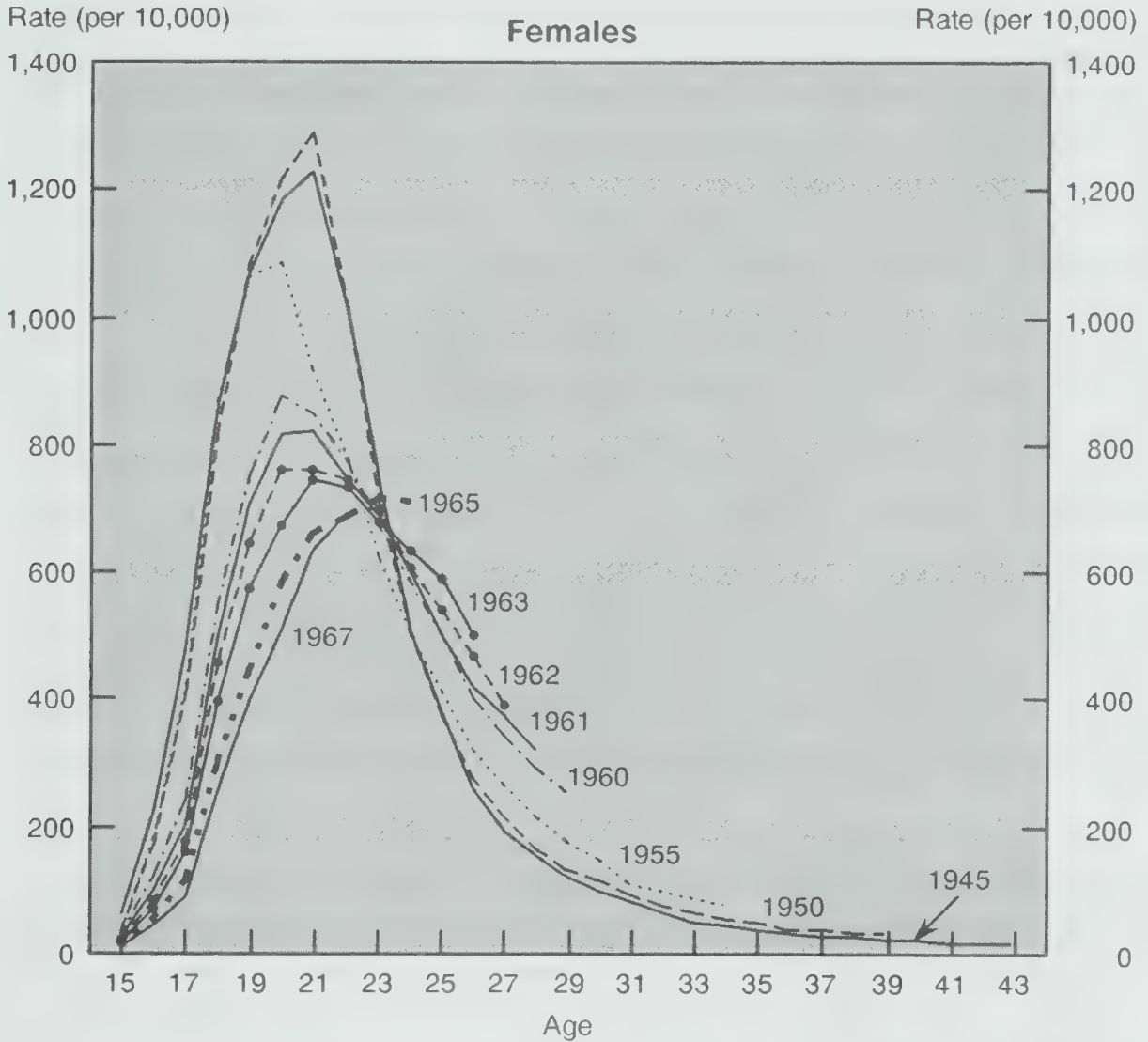
Source: Statistics Canada, unpublished data.

Figures 1 and 2 clearly show that from one cohort to the next, marriage rates among younger age groups are decreasing, while among groups in their late 20s and 30s rates are increasing. The mode has progressively shifted to the right (became older). Starting with the 1965 cohort, however, the curve corresponding to this group intersects with that of the previous cohort before the mode of the latter. This means that once again the marriage schedule is undergoing a change.

The 1990 Report pointed out that the total first marriage rate warranted cautious interpretation, but did not explain the distinction between these cumulated first marriage frequencies for a given year, and cumulated marriages from the nuptiality table for singles for that same year. In 1985, the cumulated first marriage frequency for males (total first marriage rate) was

Figure 2

Age-specific First Marriage Rates for Recent Cohorts, Canada



Source: Statistics Canada, unpublished data.

615, while the cumulated first marriages from the table for the same year was 840. A forthcoming publication in the Current Demographic Analysis Series¹ will provide an explanation for the difference between the two measures, and will present the pros and cons of each at length. It is, however, useful to summarize the highlights here.

In establishing a table of first marriages, the denominator of the rate calculated for each age is composed of the number of singles of a certain age at mid-year; in other words, the population exposed to the risk of first marriage. The rate measures the propensity to marry among singles at that age. Also assuming that the propensity at various ages remains unchanged, the

¹ See J. Dumas and Y. Perron, *Marital Life in Canada*, Ottawa: Statistics Canada. Forthcoming.

cumulated marriages derived from these rates up to age "x" among the population represented in the table, gives a measure for that year, of the level of nuptiality, assuming hypothesis of the fictitious cohort.

On the other hand, when calculating the first marriage frequency at a certain age, the total mid-year population of that age constituted the denominator. This population therefore, contains both candidates and non-candidates for marriage. Thus, the calculation is affected by the proportion of candidates for marriage among the population, and does not measure only marriage propensity among singles of that age. Specifically because of the way they are calculated, marriage frequencies at a certain age are affected by marriage rates from previous years. If nuptiality was high among younger age groups during previous years, the proportion of potential candidates for marriage in that cohort would be low. Thus, even if these candidates had a strong propensity for marriage, the index would remain low because non-candidates constitute a large segment of the population at that age. Consequently, the cumulated marriage frequencies are also low. For this reason, *when a period of early marriage is followed by one of late marriage, the cumulated marriage frequencies for a given year underestimate the nuptiality of the affected cohorts.* Indeed, at younger ages, in spite of the high proportion marriageable, very few choose to marry because marriage is postponed, while among older age groups, the low proportion marriageable accounts for the low results observed. As a consequence, the cumulated marriage frequencies are exaggeratedly low.

This situation currently prevails in Canada, as it has for many years. The total first marriage rate fell to very low levels, which in turn greatly exaggerated the fall of interest in marriage. The fact that interest in marriage has declined, however cannot be denied, and is shown in the nuptiality tables.

The Conjugal Life of Seniors

Ever since seniors began to represent an important segment of the population of western countries, they have become closely monitored with respect to their health and their income, as well as their physical and psychological well-being. Demographers consider they can contribute to the measurement of certain phenomena in relation to the elderly, in this case, marital behaviour. During recent decades, the life cycle has been altered significantly by the combined effects of lower fertility, higher life expectancy and new models of conjugal life. There may, therefore, be some concern about the impact such changes may have had on the conjugal status of persons older than 65, an age which, at the end of the twentieth century still represents an open door to a new life segment. Céline Fortier² has analyzed the evolution of certain attributes of the composition by age and marital status of Canada's elderly population.

² C. Fortier is an Analyst at the Demography Division.

Proportions According to Different Statuses

In a complete population, it must be remembered that the sum of all marital statuses always equals 100%. Secondly, the relative distribution depends on changes in these statuses, and such changes occur, due to inextricably inter-related reasons. In the case of the elderly population, the effects of a few dominant factors are easily detectable, since the number of potential factors is smaller. Thus, for example, it can be implied that more changes are attributable to the death of a spouse than to divorce. On the other hand, the observed statuses may have resulted from previous events, sometimes having their origin far back in time, but nevertheless having been maintained through time. When, for example, certain cohorts have produced only small numbers of marriages before age 50, there is a strong probability that the number of singles within those cohorts has remained high. One must, however, remain cautious in drawing conclusions from these observations. This does not preclude, however, certain observations from being made, especially those which support conclusions from previous research.

While the proportion of married men in a population is always higher than that of women, among seniors this proportion has increased rapidly, whereas that of widowers has declined. Although not the sole reason, this is in great part due to declining mortality among both men and women.

Figures 3A, 3B and 3C illustrate the proportions of persons over 65 years of age, according to marital status, since 1921.

The receding proportion of male and female singles over age 65 since 1941 is due to the fact that elderly populations are increasingly composed of successive cohorts which have been more and more interested in marriage. Another point to mention is the decline in excess mortality among singles, although this has yet to be proven.

For both sexes an increase in the proportion of divorced persons is hardly surprising since some, although in various proportions, do not remarry (Figure 3D).

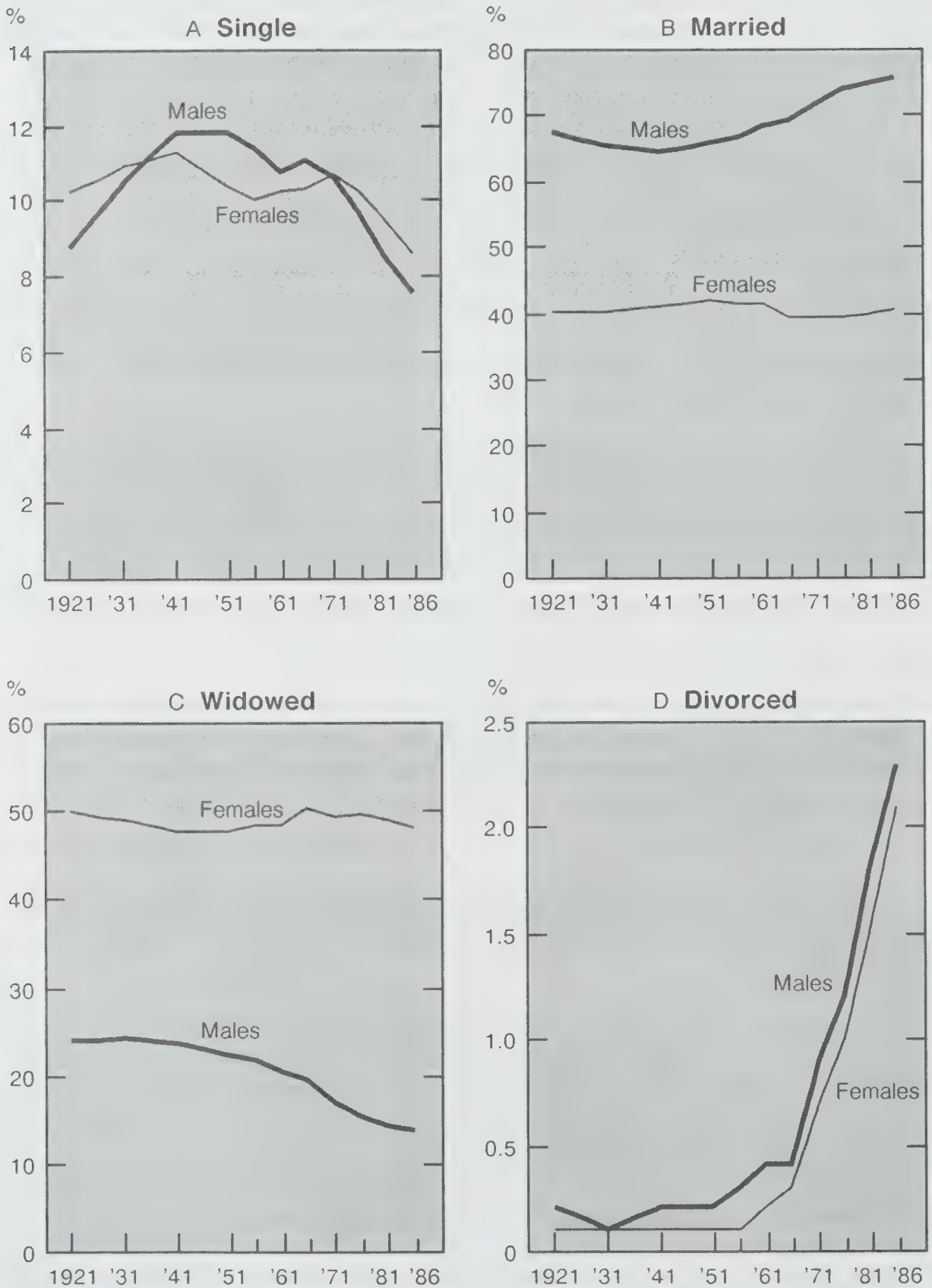
The proportion of widows, which always exceeds that of married women in spite of lower mortality, indicates over time that both sexes have benefitted from this decrease. However, the fact that the proportion of widows remains constant while that of widowers drops indicates that women have benefitted more than men from the decline in mortality.

With respect to widowhood, Figure 4 highlights two points:

- 1) The proportion of widowers increases with age because mortality rises with age; the proportion of widowers among the male population aged 60 to 64 is lower than that among those 85 to 89 years of age.

Figure 3

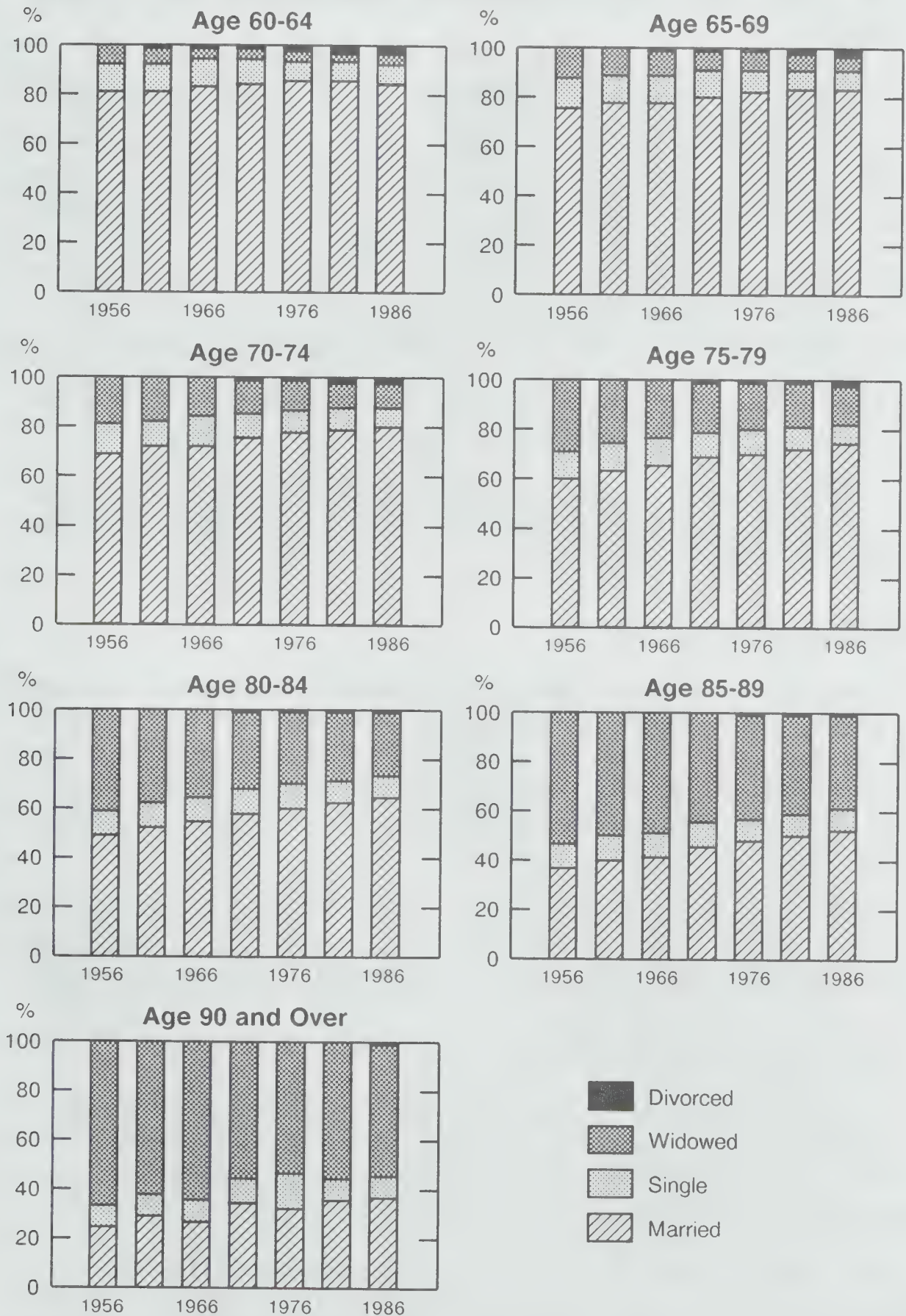
**Percent Distribution of the Population Aged 65 and Over,
by Marital Status and Sex, 1921 to 1986**



Source: Canadian Census, 1921 to 1986.

Figure 4

Percentage of Males Aged 60 and Over by Age Group and Marital Status, Census Years, 1956-1986



Source: Canadian Census, 1956 to 1986.

- 2) More significantly, in all age groups, the proportion of widowers declines from one year to the next. This fact is due to the widening gap in death rates between men and women. Age for age, as female mortality becomes progressively lower, the proportion of couples increases and that of widowers declines.

The effects of changes in mortality are also visible in Figures 5A and 5B.

For both men and women, there is a certain age when the proportions of married and widowed persons are equal. The shape of the curve representing the proportions of the two complementary statuses for each age is very different for each sex, however. Between age 60 and 70, the decline in the proportion of married men is relatively slow, but then drops exponentially. In contrast, the curve representing the proportions of married women for each age remains linear from age 60. Two consequences should be noted:

- 1) For women, parity between the proportions widowed and married occurs around age 75, while this does not occur until age 90 for men.
- 2) Due to declining mortality, parity is occurring at increasingly older ages over time for both sexes, as shown by the changing position of the intersection between 1971 and 1986.

Marriage After Age 60

The number of divorces, marriages and common-law unions have changed so drastically during the past years that many interpreted this as a radical transformation in marital customs. Some, even anticipated the appearance of very different conjugal behaviours among aged people. If this were to be the case, then analysis should reveal signs of such a transformation, since these changes in pattern started occurring several years ago.

The best tools to analyze this phenomenon are parameters of the nuptiality and divorce tables, calculated at fixed intervals of years. Before embarking upon such an analysis it is useful to evaluate the importance of marriages after age 60.

The Proportion of Marriages After Age 60

While this proportion has been slightly higher for men than for women, it has nonetheless remained very low over the past 50 years. Figure 6 shows that it has remained almost constant for men, and has increased almost imperceptibly for women.

Of this small portion, the contribution of first marriages has remained constant and negligible; the remarriage of widows and widowers is by far the most important factor. In 1940, marriages of widows accounted for 72% of some

Figure 5A

Distribution by Age and Marital Status of People Aged 60 and More, Census Year 1986

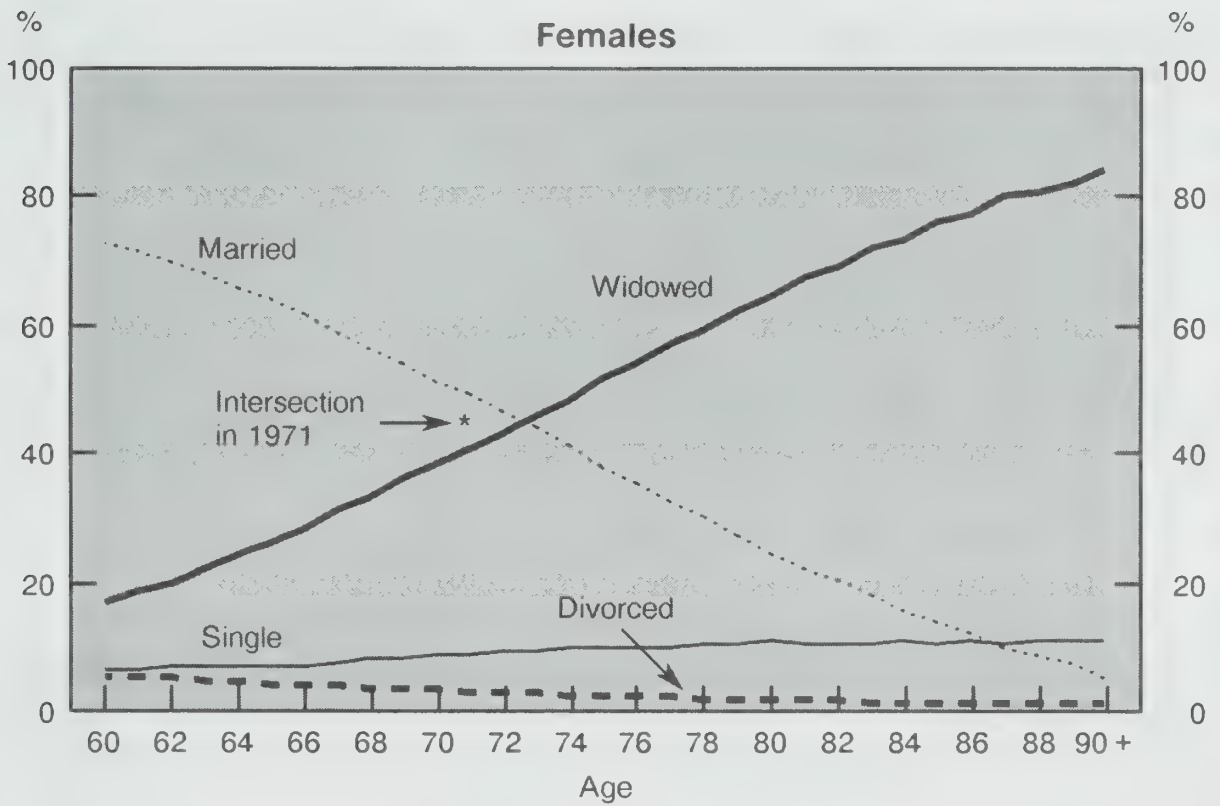
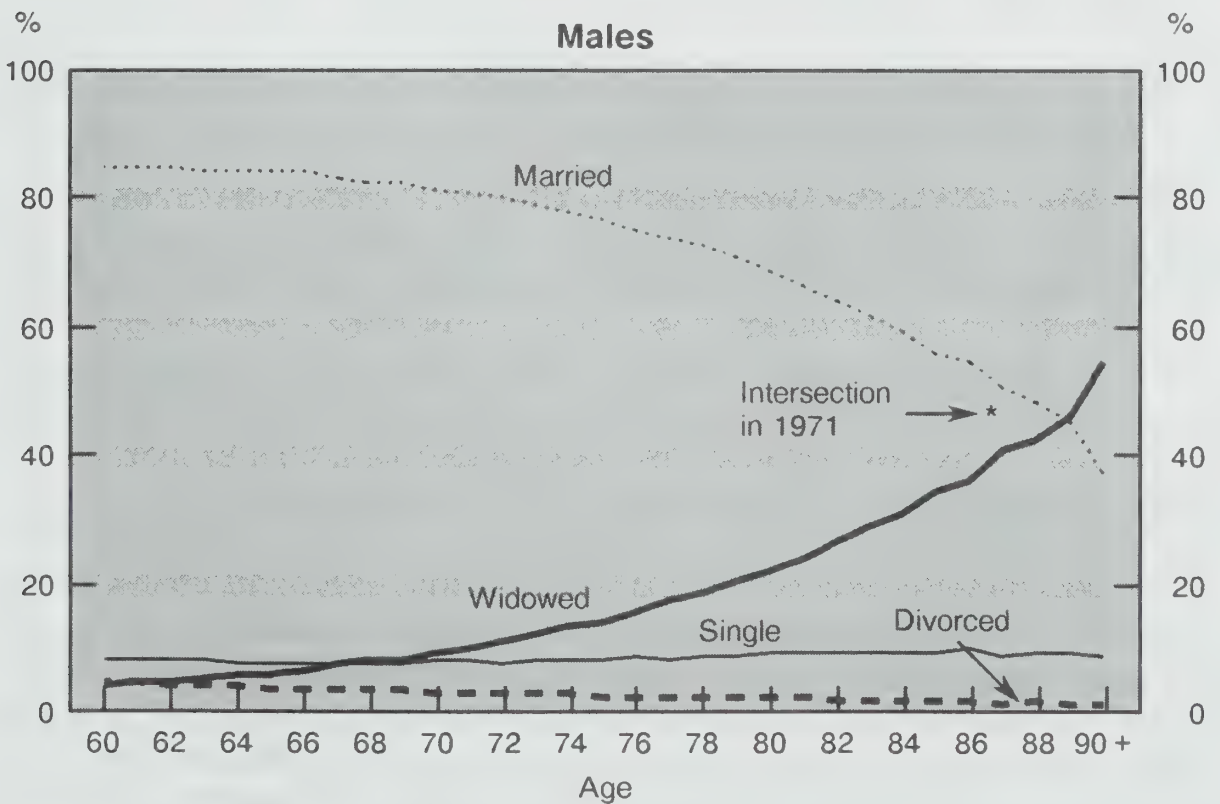


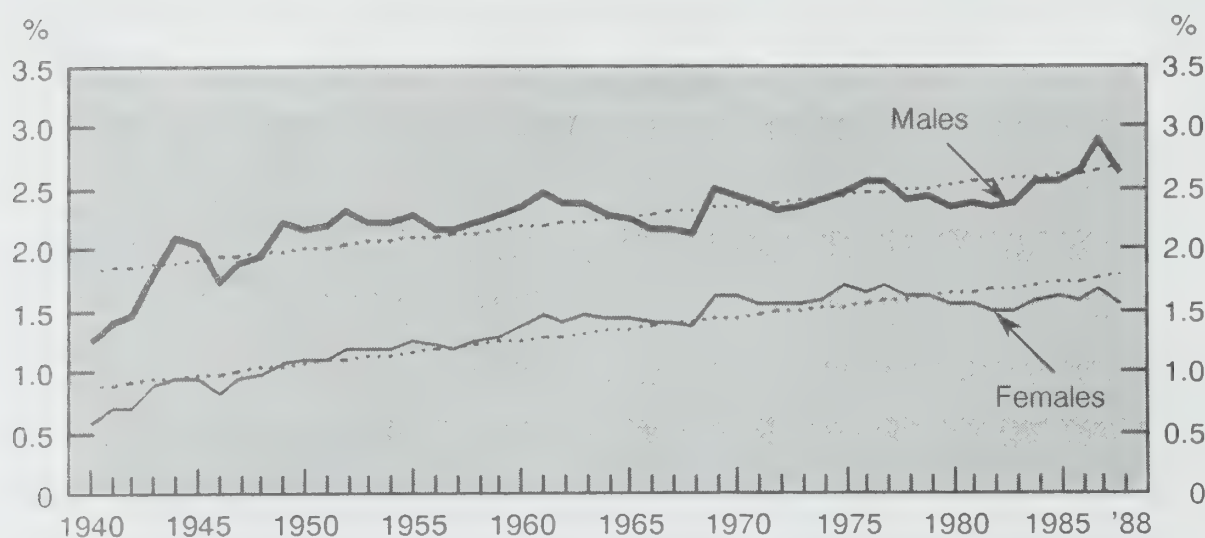
Figure 5B



Source: 1986 Census.

Figure 6

Ratio of Marriages at Age 60 and Over to All Marriages, Canada, 1940-1988



Source: Vital Statistics, annual, 1940-1988.

680 marriages among women, and in 1989, for 71% of about 3,180 such marriages. Where these two situations differ is in the proportion of *remarriages attributable to divorced women*. *Non-existent in 1940, such marriages now account for 20% of marriages among women aged over 60*. The figures for men over age 60 are as follows:

- out of 1,496 marriages in 1940, 73% were among widowers and 26% were among singles;
- there were 5,662 marriages in 1989, of which 54% were among widowers and 32% were among the divorced.

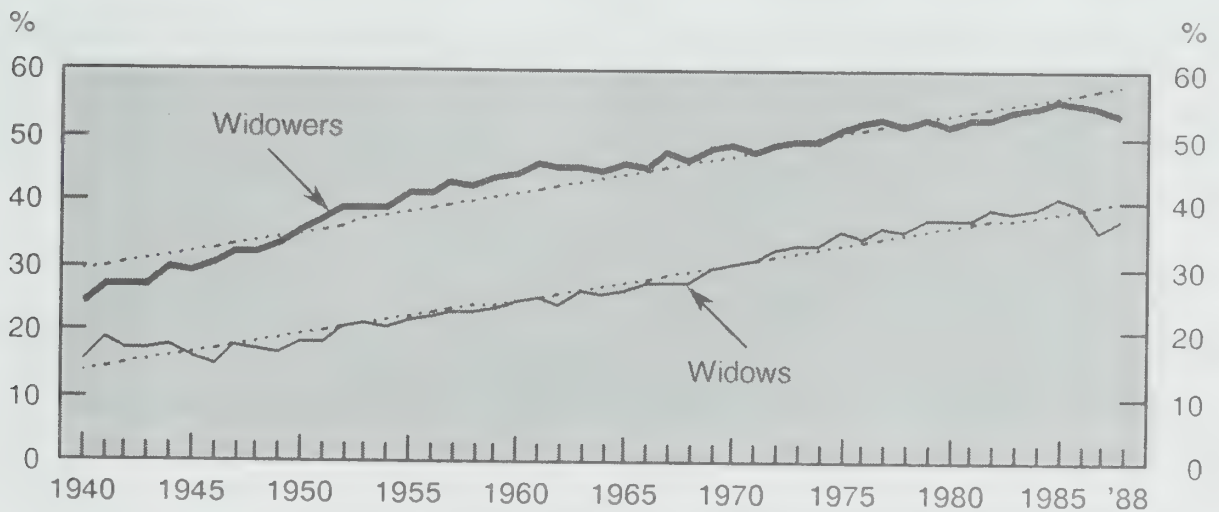
The increase in divorces has affected the conjugal life of seniors in two ways. Firstly, as a consequence: some now enter the senior citizens category as divorced persons. Secondly, in a direct manner, some elderly couples break up.

One can conclude that the formation of legal couples over 50 years has not changed much, considering the population growth, and it is still very low. Given the increase in divorce, however, unions now involve a high proportion of divorced persons and men are more numerous than women.

Another perspective can be adopted by evaluating the proportion in a given year, among all marriages of a specific marital status, accounted for by those over age 60. Figure 7 shows again the role of declining mortality. Indeed, while in 1940, marriages of widows over 60 years of age accounted for 15% of all widow marriages, today these marriages represent 37 to 40% of the whole. For men, the increase is almost as spectacular, having evolved from 24% to 54%. The decline in mortality has produced older widows and widowers.

Figure 7

Ratio of Remarriages of Widowers and Widows Aged 60 Years and Over to the Remarriages of Widowers and Widows, Canada, 1940-1988



Source: Vital Statistics, annual, 1940-1988.

Differential mortality explains the observed difference in number between widows and widowers with regard to levels of remarriage, as well as the slightly faster growth in the proportion of marriages involving widows.

While this is true for legal marriages, what about common-law unions? Figures 8A and 8B suggest easy commentary. First, while common-law unions exist among persons over age 60, they are infrequent and involve a greater proportion of men than women. Second, the older the age group, the smaller the proportion. This is mainly because persons in older cohorts tended to reject this type of union when they were younger, and had little inclination to adopt it later in life. For both men and women, however, *there was an increase in proportion for all ages between 1981 and 1986. This demonstrates that at least some men and women aged 65 and over chose this type of union once they had become senior citizens.*

Marriage Probability

Of all parameters of the table, marriage probability is likely the most telling. The nuptiality tables from which these probabilities are derived are ideally constructed using non-renewable events (first marriages, second-order marriages, third-order marriages) as the numerator, and the population exposed to the risk of the considered event (singles for first marriages, first widowhood for second-order marriages of widowers, etc.) as the denominator. Such a rich source of information is not available. However, since only a few people marry more than twice, it can be assumed with minimal impact that all remarriages are second marriages involving either widowed or divorced persons.

Figure 8A

Ratio of People Aged 60 and Over Living in Common Law Unions, by Age, Canada, 1981 and 1986

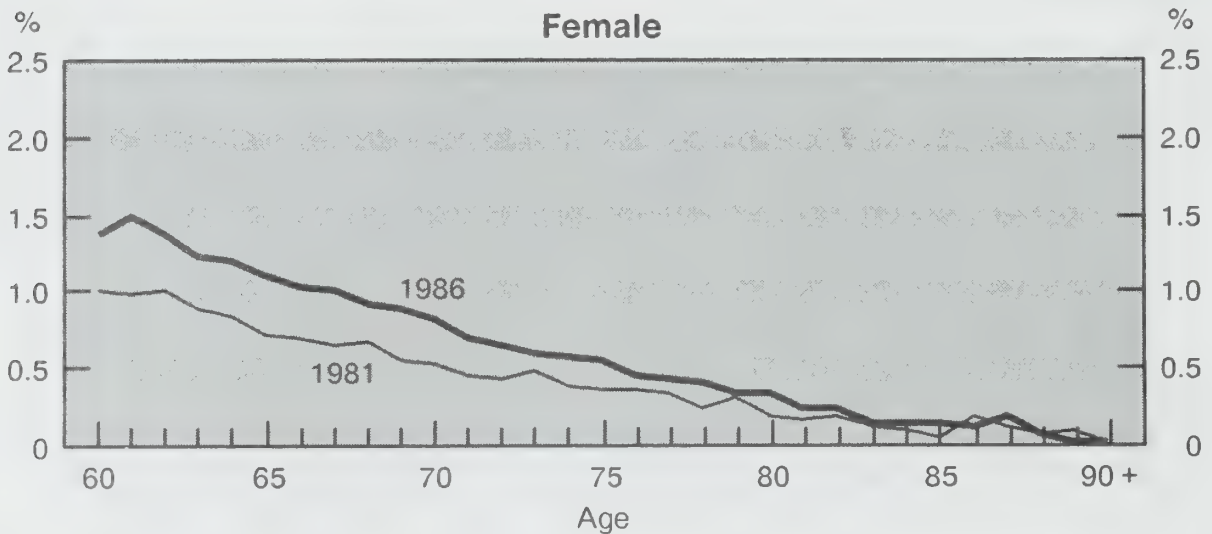
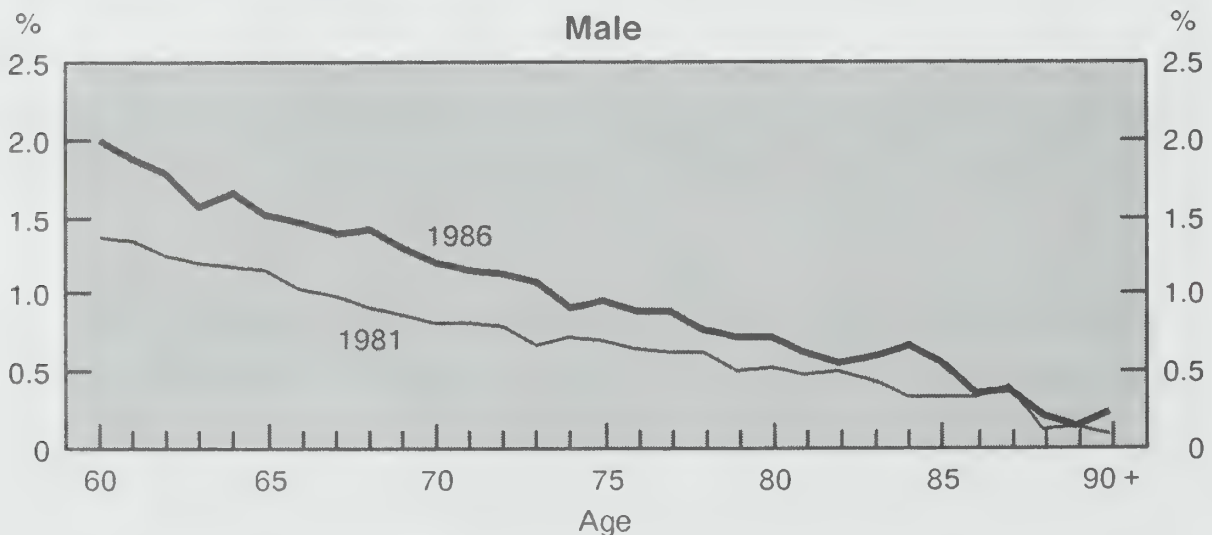


Figure 8B



Source: 1981 and 1986 Census.

Nuptiality tables have been established using rates converted into probabilities, the result of which is shown in Table 9. It is important to note that the sole risk in these probabilities is marriage, to the exclusion of death and migration. In addition, these tables are constructed using small numbers, for one calendar year only. Consequently, even though they have been calculated with care, the resulting probabilities must be read as orders of magnitude, rather than as precise measures.

Between 60 and 69 Years of Age

The probability of marriage among singles in this ten-year age interval is low (in the order of 5% for men, and less than 3% for women) and has remained unchanged over time.

Table 9. Probability of Marriage of People Aged 60 and Over, by Age Group, Sex and Marital Status, Canada (per 1,000)

	1976	1981	1986	1989
Single Males				
60-69	55	47	50	49
70-79	26	17	21	22
Widowed Males				
60-69	366	322	280	288
70-79	177	159	137	140
Divorced Males				
60-69	457	337	293	287
70-79	264	149	149	148
Single Females				
60-69	32	25	20	21
70-79	7	5	7	7
Widowed Females				
60-69	74	62	48	55
70-79	24	20	18	19
Divorced Females				
60-69	168	125	99	81
70-79	59	44	49	34

Remarriage among widowers is much more likely. The probability was in the order of 37% in 1976, and though it has declined, it was still at 29% in 1989. In contrast, widows are less likely to remarry, with the 7% probability observed in 1976 falling to only 5% in 1989.

Divorced men have the highest probability of remarriage, but even here, the likelihood has declined from 46% in 1976 to only 29% nowadays. Among women, the divorced are the most susceptible to remarriage, although less so than men. Like men, the probability of remarriage has also declined for women, having gone from 17% to 8% between 1976 and 1989.

That the female probability of remarriage remains consistently lower is due to the conditions of the marriage market, where women are in much greater number than men. As a result some have no other choice than to stay unmarried.

Marriage probabilities among older groups in their seventies are less differentiated owing to their very low levels. They do, however, have the same characteristics as those among younger seniors, and they also have declined over time.

Conclusion

An important element from this analysis on the state of conjugal life among Canada's elderly is the fundamental role that mortality decline has played in the changes that have been observed. In particular, this decline has increased the proportion of aged married men and reduced the proportion of widowers. It has deferred widowhood to later and later ages, and has produced a notable gap between men and women. Very few singles marry at such advanced ages, there being so few remaining, but the remarriage probabilities for widowed persons, and most particularly for divorced persons, remain strong at least until age 70. Common-law unions exist among senior citizens not only as a continuation of a life segment that today's seniors started before entering this age category, but also because some initiate such unions after entering their senior years.

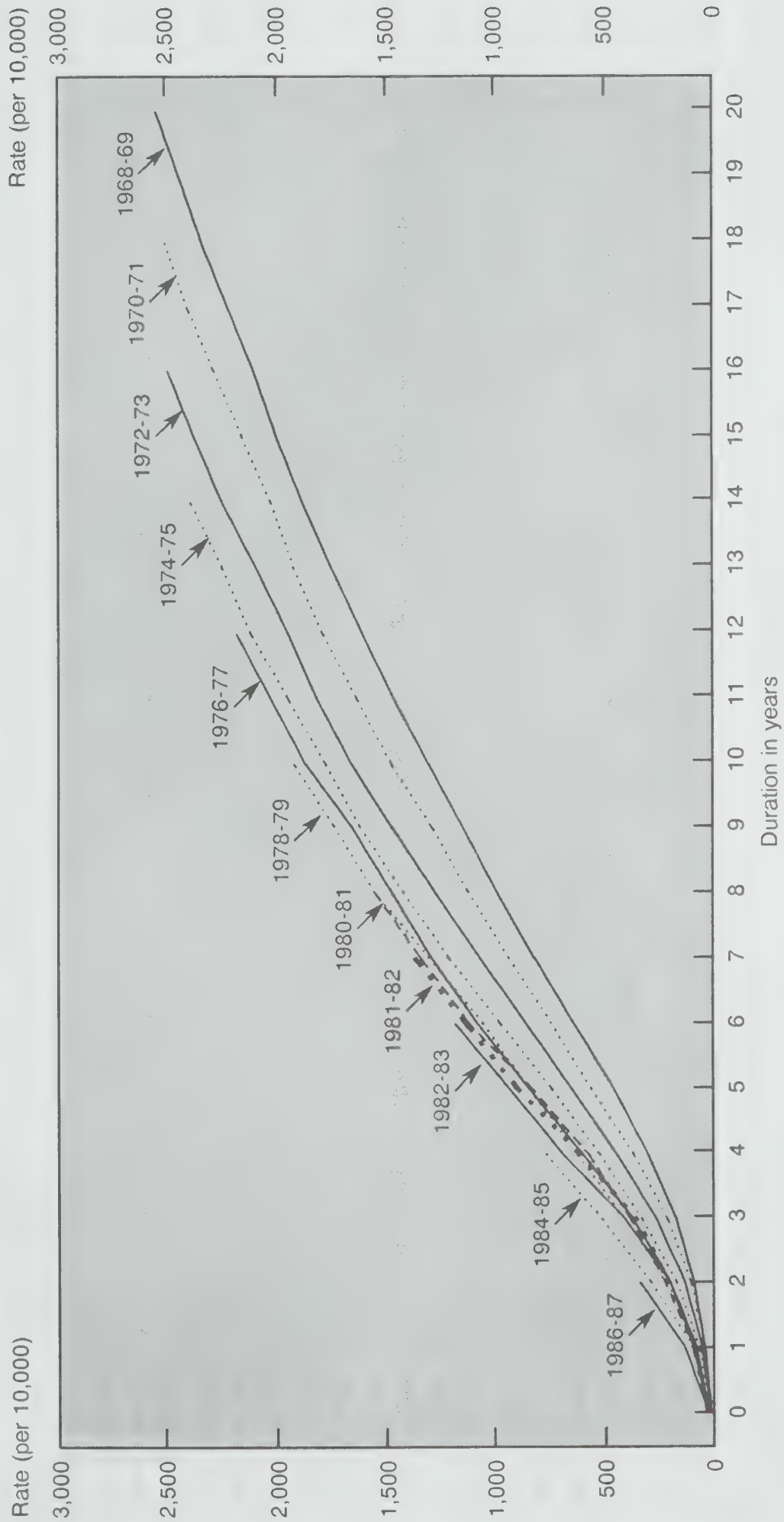
DIVORCE

In 1989, the total divorce rate (as the sum of divorce rates by duration of marriage) was 3,982 per 10,000 marriages. This was higher than what some indications had led us to expect. After the inflated values in 1986 and 1987 owing to the passage of the new Divorce Act, 1988 was marked by a declining index. This one-year drop led observers to conclude that values would revert to those observed in 1982, 1984 and 1985, which were declining at that time. It is difficult to find intrinsic reasons to explain the increase, since rates in 1989, for all durations, were higher than those of the previous year. It may have been the speeding-up of procedures attendant upon the new act. Or the fact that the inclination to seek divorce now arises sooner as a consequence of the relative ease with which a divorce is now granted. Formerly exceptional, divorce is now commonplace. This phenomenon is not without precedent. After the Soviet revolution, divorce procedures became so simple that it basically came down to informing the authorities that a break-up had occurred. As a result, indices jumped to very high levels for the time, and the state quickly limited the liberties in this area, fearing an adverse effect on fertility.

It should be remembered that the 1988 Act differed significantly from the 1968 Act in that the former only required proof of separation for one year *prior to deliverance of the decree*, as opposed to the previous requirement of 3 years (or 5 years) *prior to filing the request for divorce*. If these are not sufficient reasons for the observed increase in divorce, then it must be attributed to the unpredictable functioning of the court system.

A closer look at the rates according to duration of marriage reveals a peak at duration 3, while in previous years, the peak was at duration 5. These increasingly early divorces likely result, in part, from the sharp increase in common-law unions as a prelude to marriage during the past years.

Figure 9
Cumulative Divorce Rate by Duration of Marriage in Recent Cohorts, Canada



Source: Vital Statistics, volume II, catalogue 84-205 and calculations made by the Demography Division.

Year	Number of Marriages per Calendar Year	Marriage Cohort	Cohort Marriages	Duration of Marriage																									Year of Observation	T.D.R. ¹		
				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			25	
1967	165,879	1966-67	160,737			31	68	102	126	139	166	177	171	155	145	136	132	130	128	117	105	94	109	118	103	97						
1968	171,766	1967-68	168,823	17	49	75	115	142	162	183	173	165	156	151	136	138	138	117	109	96	112	120	102	108								
1969	182,183	1968-69	176,974	3	22	53	83	122	158	182	184	171	165	160	152	147	144	132	111	103	118	123	105	105								
1970	188,428	1969-70	185,305	3	25	55	92	151	177	192	192	176	174	163	162	157	139	128	112	118	130	106	113									
1971	191,324	1970-71	189,876	4	28	61	106	161	186	189	191	184	180	172	166	150	130	116	125	133	109	113										
1972	200,490	1971-72	195,907	4	33	74	117	174	193	196	197	191	187	185	168	144	125	141	141	119	121											
1973	199,064	1972-73	199,777	5	36	83	129	181	203	212	211	205	204	180	155	135	149	155	125	126												
1974	198,824	1973-74	198,944	5	44	94	136	184	213	226	228	218	189	168	146	154	163	133	129													
1975	197,585	1974-75	198,205	6	52	104	147	199	224	243	232	214	185	162	167	177	134	139														
1976	193,343	1975-76	195,464	8	59	111	161	218	249	246	226	193	167	190	184	148	152															
1977	187,344	1976-77	190,343	8	63	116	166	232	250	238	209	180	195	201	163	158																
1978	185,523	1977-78	186,434	7	65	126	175	237	251	220	198	224	224	175	174																	
1979	187,811	1978-79	186,667	8	60	135	187	228	225	210	246	245	190	184																		
1980	191,069	1979-80	189,440	8	68	137	178	207	212	261	269	206	206																			
1981	190,575	1980-81	190,822	9	74	133	154	190	262	285	225	217																				
1982	188,360	1981-82	189,468	10	69	120	147	252	294	237	230																					
1983	184,675	1982-83	186,518	9	67	110	202	295	246	246																						
1984	185,597	1983-84	185,136	9	66	145	246	239	252																							
1985	184,096	1984-85	184,846	10	70	197	227	260																								
1986	175,518	1985-86	179,807	10	96	200	264																									
1987	182,151	1986-87	178,835	18	99	216																										
1988	187,728	1987-88	184,940	18	105																											
1989	190,640	1988-89	189,184	19																												

¹Total divorce index.

Source: Vital Statistics, Marriages and Divorces, Catalogue 84-205 Annual from 1943 to 1986 and Canadian Centre for Health Information, Marriages, annual, Divorces, annual from 1987 to 1989. Calculations made at the Demography Division, Statistics Canada.

Table 11. Duration-specific Divorce Rate (per 10,000) for Ontario and the Rest of Canada, 1989

Marriage Cohort	Marriage (number)		Divorce (number)		Divorce Rate (per 10,000)	
	Ontario	Rest of Canada	Duration of Marriage (in years)	Ontario	Rest of Canada	Ontario
1988-1989	79,455	109,729	0	102	253	12.8
1987-1988	77,367	107,573	1	683	1,265	88.3
1986-1987	73,520	105,315	2	1,568	2,297	213.3
1985-1986	71,865	107,942	3	1,865	2,884	259.5
1984-1985	72,407	112,440	4	1,919	2,882	265.0
1983-1984	71,408	113,729	5	1,923	2,749	269.3
1982-1983	71,244	115,274	6	1,865	2,731	261.8
1981-1982	70,938	118,530	7	1,754	2,610	247.3
1980-1981	69,561	121,262	8	1,594	2,541	229.2
1979-1980	68,410	121,030	9	1,436	2,463	209.9
1978-1979	67,736	118,932	10	1,330	2,111	196.4
1977-1978	67,611	118,824	11	1,230	2,022	181.9
1976-1977	68,547	121,796	12	1,182	1,821	172.4
1975-1976	70,787	124,678	13	1,099	1,865	155.3
1974-1975	72,463	125,743	14	1,008	1,738	139.1
1973-1974	72,544	126,401	15	979	1,580	135.0
1972-1973	72,325	127,453	16	951	1,559	131.5
1971-1972	70,934	124,973	17	907	1,473	127.9
1970-1971	69,232	120,644	18	829	1,310	119.7
1969-1970	68,012	117,293	19	823	1,262	121.0
1968-1969	64,630	112,345	20	712	1,155	110.2
1967-1968	60,243	108,580	21	673	1,147	111.7
1966-1967	56,474	104,263	22	581	976	102.9
1965-1966	52,923	97,635	23	482	874	91.1
1964-1965	49,888	91,940	24	442	732	88.6
1963-1964	46,904	87,720	25	402	618	85.7
Total Divorce Rate						4,126.63
						3,902.15

Generally, because of the phased liberalisation of divorce, its measurement has become somewhat less relevant. Measuring the divorce rate according to duration of marriage implies the tacit hypothesis that divorce results from the couple becoming so worn down that the arduous and costly procedure of divorce, becomes no longer an obstacle. The fact that divorce becomes easy to obtain, to an extent is linked to the weakening of the marriage itself and its measurement becomes somewhat less salient to society from a demographic point of view.

On the other hand, the 1989 divorce rate may have been overestimated, considering that the number of immigrants had increased noticeably over the previous few years. Indeed, in a previous report³, it was shown that the divorce rate among persons who were married in Canada was notably lower than that calculated without excluding persons who were not married here. It is now not possible to make this exclusion in the data, and therefore the divorce rate is affected to some degree by immigration. This becomes all the more salient when we consider the fact that the increase in divorce between 1988 and 1989 was mainly observed in Ontario, the province that directly and indirectly receives the largest number of international immigrants. Between marital durations 2 and 8, no less than 40% of Canadian divorces were granted in Ontario. Although the specific effect cannot be ascertained from the available data, these relationships reinforce the idea that immigration has an impact on the divorce rate in Canada (see Table 11).

Figure 9 summarizes the history of divorce among relatively recent marriage cohorts. There is a clear overall impression that the phenomenon has intensified, since the curves representing recent cohorts do not intersect those of older cohorts. The 1978-1979 cohort took only 10 years to produce the number of divorces that the 1968-1969 cohort produced after 15 years. On the other hand, for a specific cumulated divorce frequency (2,000, for example), *the fact that the gap between curves of cohorts is diminishing indicates that the final intensity of divorce from older to more recent cohorts would have increased at a slower rate than the cross-sectional indices would lead us to believe.*

FERTILITY

Analyzing fertility over the past years shows that the reproductive behaviours in Canada are quite similar to those of European countries (see Table 4), which seemingly have reached the end of their demographic transition earlier than has North America. For several years now, the fertility indices of those countries have been hovering around a level slightly lower than what is needed for cohort replacement according to the assumption used to calculate the index. The same is true for Canada. From 1981 to 1987, the index, rounded to the

³ See Statistics Canada, *Report on the Demographic Situation in Canada, 1988*, catalogue 91-209, Ottawa, p.45.

Figure 10

Total Fertility Rates by Rank, Canada, Provinces and Territories, 1981-1989

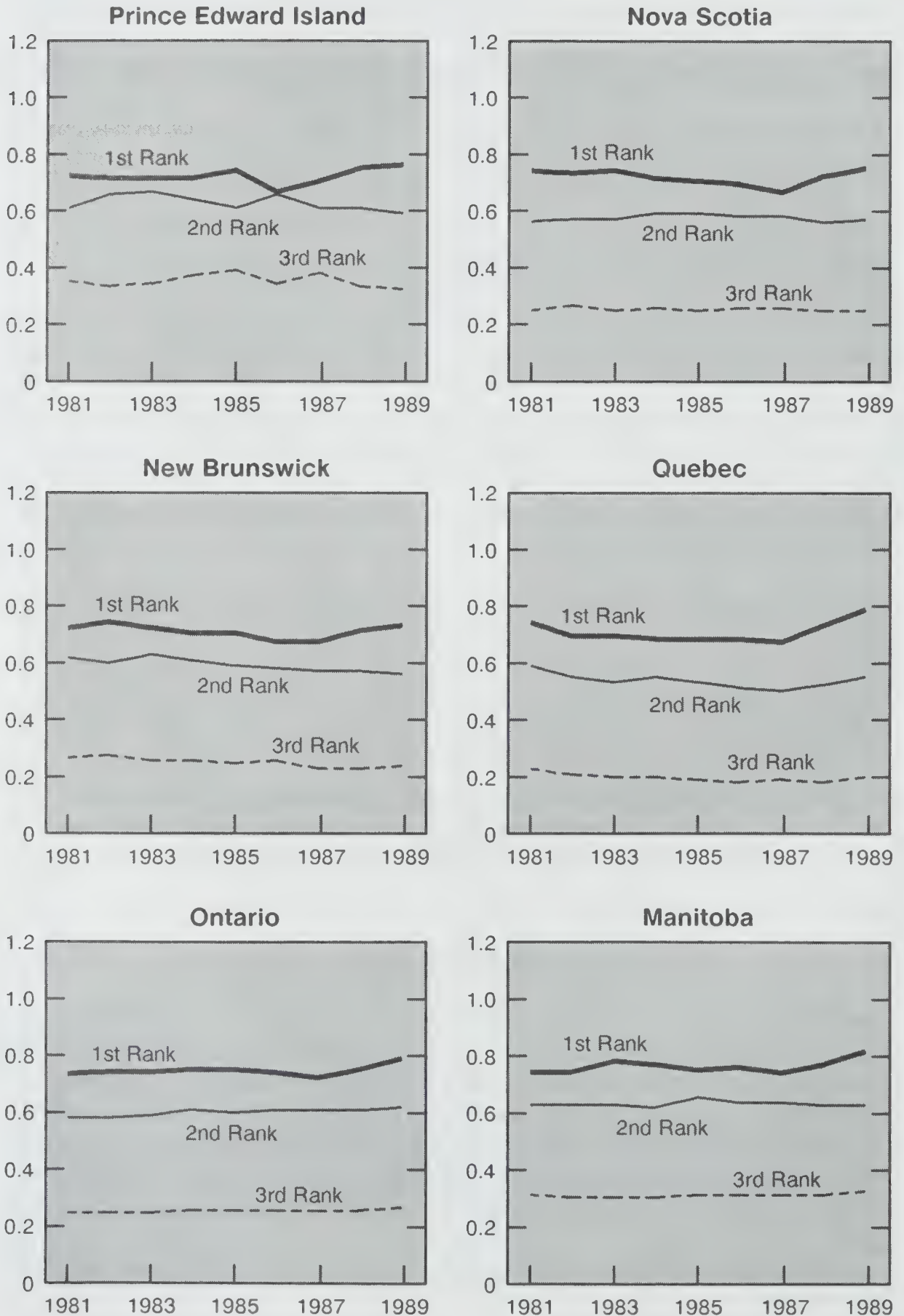
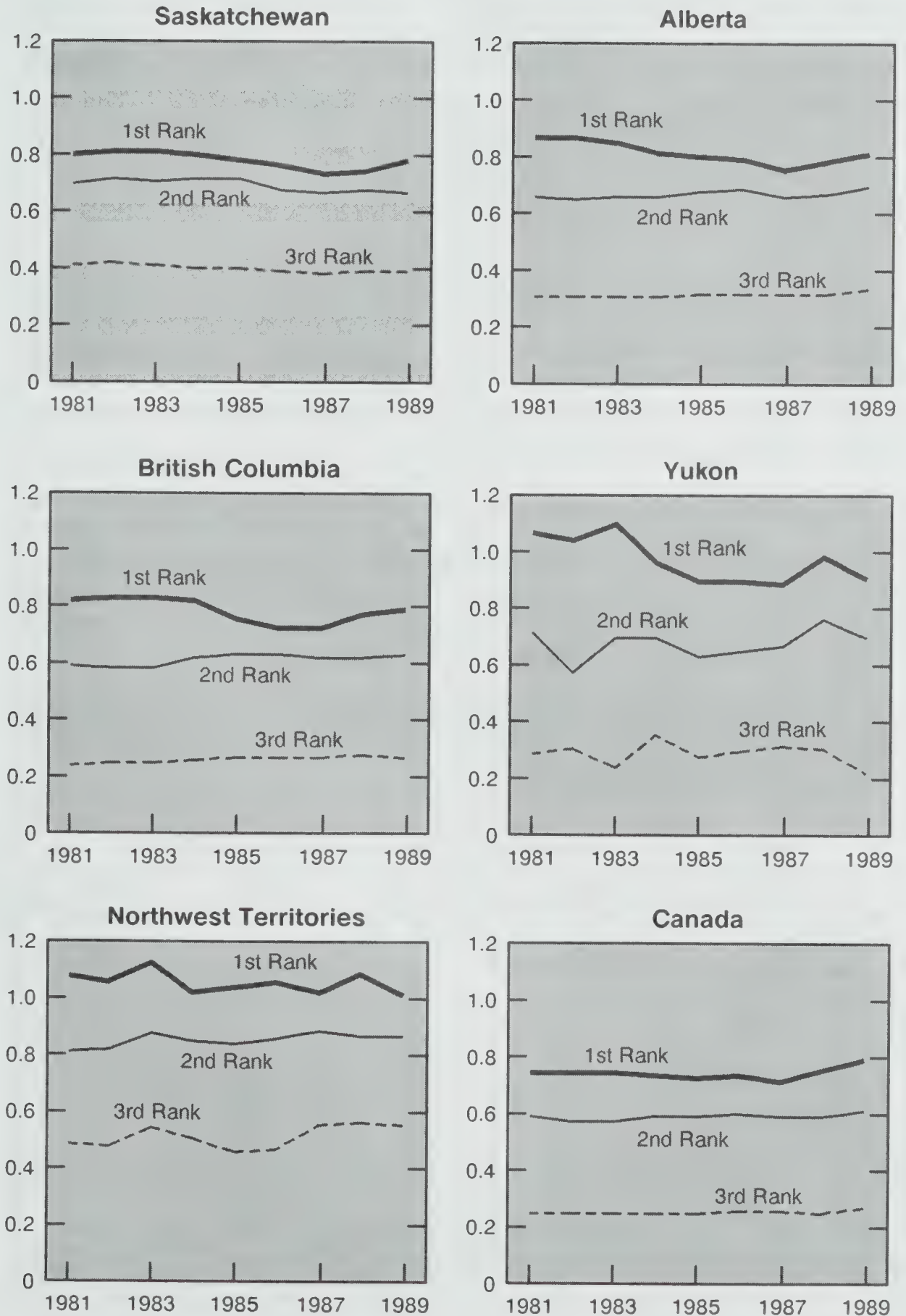


Figure 10

**Total Fertility Rates by Rank, Canada, Provinces and Territories,
1981-1989 - Concluded**



first decimal, remained constant (meaning that, variations in the second and third decimals were irrelevant in terms of signalling changes in fertility). Since then, it has been different. Evidently, the 1989 index marked a change. At 1.76, one can only wonder what is happening in Canadian society. A detailed examination of fertility by province provides a quick answer. With the exception of Prince Edward Island, indices for 1989 had increased over those of 1988 in all provinces. Moreover, with the minimal exceptions of Saskatchewan and Newfoundland, these indices were higher than those of 1987. The total increase, of course, is not spectacular (4%). One province, however, is an exception: *in Quebec, fertility rose in two years from 1.42 to 1.60, a rise of 12.1%.* As the province with the second highest increase was Alberta (6%), fertility in Quebec clearly seems to be on the rise.

An examination of order-specific fertility rates show that, for all provinces, first-order fertility has risen the most: around 9% for all provinces, with the exception of Quebec's 18% increase. Fertility at higher orders has changed only minimally: 1.2% for order 2, 2% for order 3, and a slight decrease for orders 4 and beyond. Quebec is again a notable exception, with increases of 9.3% for order 2, and 9.4% for order 3.

Examination of order-specific and age-specific fertility shows that in Quebec, changes in order 2 fertility in the 30 to 34 age group have likely had the greatest impact on births. This rate went from 25.82 to 30.02 per 1,000 – an increase of 16.3% among a substantial group of women. The 25 to 29 age group also made a strong contribution, with an increase of 19% for order 1. *In brief, fertility among relatively older women has increased the most.*

Even though first order fertility in Quebec is now generally comparable to that in the other provinces, fertility for higher ranks and particularly that of order 3 and beyond, is still rather low.

Table 12. Total Fertility Rate, Canada and Provinces, 1987-1989

Province	1987	1988	1989	1987-89
Newfoundland	1.5680	1.5062	1.5650	– 0.2
Prince Edward Island	1.8626	1.8748	1.8291	– 1.8
Nova Scotia	1.5915	1.6077	1.6596	4.3
New Brunswick	1.5608	1.5784	1.6034	2.7
<i>Quebec</i>	1.4235	1.4830	1.5958	<i>12.1</i>
Ontario	1.6839	1.7016	1.7757	5.5
Manitoba	1.8769	1.8909	1.9498	3.9
Saskatchewan	2.0383	2.0291	2.0719	1.6
Alberta	1.8808	1.9191	1.9932	6.0
British Columbia	1.7140	1.7571	1.7769	3.7
Yukon	2.0050	2.1619	1.9803	– 1.2
Northwest Territories	3.0498	3.1628	2.9853	– 2.1
<i>Canada</i>	1.6571	1.6878	1.7606	<i>6.2</i>

Source: Statistics Canada, *Health Reports, Births*, Catalogue 82-003s14 annual and calculations made at the Demography Division.

How to Read the Future

Considering indices from recent years, a rise in fertility no longer can be discounted. But one cannot go so far as to conclude that a strong revival in fertility is beginning in Canada. The index for Canada excluding Quebec has reached 1.82 with an increase of 5% in 2 years. That of Quebec is 1.60, after an increase of 12% over these same two years.

Table 13. Change in Percent Distribution of Fertility by Parity, Canadian Provinces¹, 1987-1989

	1	2	3	4+	Total
Newfoundland	3.0	1.3	-3.4	-18.3	-0.2
Prince Edward Island	8.6	4.1	21.0	2.1	-1.8
Nova Scotia	12.4	-0.1	-1.3	-6.0	4.3
New Brunswick	8.0	-1.8	4.4	-16.3	2.7
<i>Quebec</i>	<i>17.6</i>	<i>9.3</i>	<i>9.4</i>	<i>-10.5</i>	<i>12.1</i>
Ontario	9.4	2.1	3.9	0.9	5.5
Manitoba	10.1	-1.8	1.7	2.3	3.9
Saskatchewan	6.4	0.1	3.1	-9.5	1.6
Alberta	7.6	6.2	4.6	0.6	6
British Columbia	9.1	0.6	-2.2	-1.0	3.7

¹ The small number of births in the Yukon and Northwest Territories precludes calculation.

Increases in first-order births account for almost the entire increase in Canada, while for Quebec, the contribution from order 2 is undeniable. Though Quebec's second-order rate may catch up with that of Canada, it will probably not go much beyond. Very preliminary estimates from Le Bureau de la statistique du Québec (BSQ) indicate that the total rate in Quebec may reach 1.65 for 1990, due to important rate increases for orders 1 and 2 and an almost negligible contribution from order 3. In 1991, if Canada's index were to continue to grow by 4.5% over two years, and Quebec's were to attain 1.70, the index for the whole country could reach 1.85 births per woman.

Because of the relatively important place occupied by first-order fertility among older women, the average age at first birth is currently high. It is highest in Ontario, at 26.13 years in 1989, while it is lowest in Saskatchewan, at 24.28 years. For Canada as a whole, the age increase for all orders is clearly shown in Table 15. But the reader should not be misled; the age gap between orders as presented does not measure intervals between consecutive births in a particular family, since the index is calculated cross-sectionally involving different women for different parities.

Birth Intervals and the Duration of the Childbearing Period

Vital statistics does not record the time elapsed since any previous birth. Therefore the average pace of successive births cannot be established statistically for a woman of a specific cohort.

Table 14. Age-specific Fertility and Total Fertility Rates by Birth Order and Age of the Mother, Quebec and the Rest of Canada, 1981-1989

Birth Order	Year	15-19		20-24		25-29		30-34		35-39		40-44		Total Fertility Rate	
		Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada
1	1982	12.92	25.44	54.57	56.68	51.27	50.42	15.99	18.45	3.63	4.14	0.48	0.53	0.6943	0.7783
	1983	12.45	23.71	53.67	55.27	52.02	51.37	16.47	19.97	3.82	4.75	0.47	0.53	0.6945	0.7780
	1984	12.34	22.99	50.78	52.69	51.93	51.68	16.46	21.24	4.02	4.91	0.55	0.56	0.6804	0.7703
	1985	12.43	22.05	48.99	50.09	52.16	51.58	17.50	21.68	4.03	4.86	0.48	0.58	0.6780	0.7542
	1986	13.00	22.03	48.75	48.78	51.93	50.35	18.19	21.16	4.51	5.07	0.51	0.67	0.6844	0.7404
	1987	13.35	21.27	45.80	46.36	51.17	49.71	18.46	21.43	4.24	5.34	0.61	0.74	0.6682	0.7242
	1988	14.11	21.74	49.47	46.50	56.55	52.60	20.14	23.02	4.86	6.15	0.72	0.79	0.7292	0.7540
	1989	15.28	23.21	52.38	48.25	60.90	54.22	22.47	24.67	5.40	6.51	0.66	0.88	0.7855	0.7886
2	1981	1.63	4.57	25.23	33.45	54.53	49.14	28.38	26.14	6.29	6.02	0.59	0.64	0.5833	0.5998
	1982	1.60	4.57	23.53	32.74	51.05	48.49	26.16	26.91	5.94	6.49	0.62	0.66	0.5445	0.5993
	1983	1.54	4.37	22.82	32.00	49.54	48.68	25.63	28.38	5.44	6.93	0.63	0.78	0.5280	0.6057
	1984	1.59	4.26	22.50	31.48	50.74	49.75	27.34	29.87	5.84	7.64	0.63	0.73	0.5432	0.6187
	1985	1.63	4.17	21.42	30.29	49.24	50.06	27.08	31.13	5.90	7.97	0.60	0.82	0.5293	0.6221
	1986	1.66	4.03	19.50	29.14	48.06	49.95	26.15	31.85	5.82	8.29	0.69	0.84	0.5094	0.6205
	1987	2.05	4.24	20.25	27.61	45.24	49.08	25.82	32.23	5.90	8.72	0.69	0.97	0.4998	0.6143
	1988	1.81	3.91	20.05	26.90	46.11	48.11	28.42	32.81	6.97	9.48	0.86	1.15	0.5211	0.6118
	1989	1.99	4.23	21.28	27.00	47.82	48.57	30.02	34.14	7.34	9.98	0.76	1.14	0.5461	0.6253
3	1981	0.16	0.45	4.64	8.91	17.86	20.55	17.03	16.39	4.71	4.95	0.57	0.71	0.2249	0.2598
	1982	0.11	0.50	4.49	8.89	16.31	20.71	14.93	16.56	4.73	5.54	0.59	0.62	0.2058	0.2641
	1983	0.14	0.44	4.04	8.57	15.23	20.50	14.36	16.89	4.18	5.66	0.55	0.62	0.1925	0.2634
	1984	0.10	0.45	3.84	8.34	14.71	20.50	14.22	17.91	4.42	5.80	0.59	0.67	0.1894	0.2683
	1985	0.15	0.46	3.79	8.24	14.29	20.38	13.71	18.11	4.36	6.03	0.53	0.72	0.1841	0.2697
	1986	0.18	0.50	3.50	7.98	13.66	20.21	12.75	18.34	4.39	6.15	0.59	0.76	0.1754	0.2698
	1987	0.22	0.48	4.26	7.94	13.98	19.82	12.79	18.57	4.05	6.47	0.58	0.80	0.1794	0.2704
	1988	0.18	0.49	3.65	7.59	12.97	19.44	12.76	18.68	4.20	6.92	0.54	0.88	0.1715	0.2700
	1989	0.23	0.50	4.41	7.72	14.62	19.17	14.52	19.44	4.80	7.38	0.68	0.99	0.1963	0.2760

Table 14. Age-specific Fertility and Total Fertility Rates by Birth Order and Age of the Mother, Quebec and the Rest of Canada, 1981-1989 - Concluded

Birth Order	Year	15-19		20-24		25-29		30-34		35-39		40-44		Total Fertility Rate	
		Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada
4	1981	0.01	0.05	0.57	1.69	3.03	5.52	4.60	5.88	2.29	2.72	0.44	0.52	0.0547	0.0819
	1982	0.01	0.03	0.57	1.69	2.97	5.55	4.28	6.01	2.27	2.89	0.43	0.49	0.0527	0.0833
	1983	0.01	0.03	0.60	1.58	2.89	5.44	3.98	6.01	1.99	2.88	0.35	0.49	0.0491	0.0821
	1984	0.02	0.04	0.53	1.57	2.73	5.62	3.75	6.05	1.79	2.82	0.34	0.44	0.0458	0.0827
	1985	0.02	0.04	0.50	1.54	2.55	5.49	3.62	6.23	1.87	2.93	0.29	0.55	0.0442	0.0839
	1986	0.02	0.03	0.50	1.59	2.50	5.42	3.46	6.20	1.73	2.90	0.39	0.52	0.0429	0.0833
	1987	0.04	0.05	0.78	1.74	3.06	5.62	4.16	6.27	1.91	3.03	0.42	0.52	0.0519	0.0862
	1988	0.02	0.05	0.56	1.56	2.52	5.26	3.21	6.05	1.75	2.99	0.45	0.53	0.0425	0.0822
	1989	0.01	0.06	0.59	1.68	2.74	5.27	3.82	6.47	1.74	3.20	0.36	0.59	0.0463	0.0863
5 +	1981	0.00	0.01	0.13	0.37	0.79	1.91	1.57	3.28	1.58	2.68	0.58	0.95	0.0233	0.0460
	1982	0.00	0.00	0.13	0.39	0.83	1.99	1.36	3.11	1.40	2.66	0.52	0.94	0.0212	0.0455
	1983	0.00	0.00	0.11	0.35	0.72	1.96	1.42	3.14	1.26	2.32	0.51	0.78	0.0201	0.0428
	1984	0.00	0.00	0.08	0.35	0.68	1.94	1.37	3.08	1.25	2.41	0.40	0.75	0.0189	0.0427
	1985	0.00	0.01	0.08	0.39	0.69	1.95	1.18	3.04	1.05	2.18	0.34	0.70	0.0167	0.0413
	1986	0.00	0.00	0.10	0.39	0.70	1.90	1.34	2.96	1.09	2.14	0.38	0.68	0.0180	0.0404
	1987	0.00	0.01	0.22	0.42	1.16	2.18	1.77	3.25	1.30	2.28	0.41	0.70	0.0243	0.0442
	1988	0.00	0.01	0.09	0.40	0.65	1.82	1.37	3.12	1.22	2.19	0.41	0.71	0.0187	0.0413
	1989	0.00	0.00	0.13	0.43	0.81	1.90	1.67	3.02	1.35	2.26	0.37	0.66	0.0217	0.0413
All Birth Orders	1981	14.73	30.41	88.24	100.94	132.02	126.98	68.30	69.28	18.41	20.13	2.73	3.31	1.6223	1.7552
	1982	14.64	30.55	83.28	100.39	122.43	127.17	62.73	71.03	17.98	21.72	2.65	3.24	1.5185	1.7705
	1983	14.14	28.56	81.24	97.77	120.40	127.95	61.87	74.39	16.69	22.53	2.51	3.19	1.4842	1.7719
	1984	14.05	27.74	77.73	94.43	120.79	129.49	63.15	78.15	17.31	23.59	2.51	3.16	1.4777	1.7827
	1985	14.23	26.72	74.78	90.55	118.94	129.46	63.09	80.18	17.21	23.97	2.24	3.37	1.4524	1.7712
	1986	14.86	26.59	72.34	87.88	116.85	127.83	61.88	80.52	17.54	24.55	2.57	3.49	1.4302	1.7543
	1987	15.68	26.05	71.31	84.07	114.61	126.41	63.00	81.75	17.40	25.83	2.71	3.73	1.4235	1.7392
	1988	16.11	26.20	73.82	82.94	118.81	127.24	65.91	83.68	18.99	27.73	2.97	4.06	1.4830	1.7593
	1989	17.51	28.00	78.80	85.06	126.89	129.13	72.50	87.74	20.64	29.33	2.83	4.25	1.5958	1.8175

¹ 1981 to 1985 excludes Newfoundland.

Note: The small difference in the data between this table and others published in previous editions is explained by the denominators used.

Henceforth, the denominator represents the average from 2 successive counts of the reference population as of January 1st.

Source: Statistics Canada, Vital Statistics, *Births and Deaths*, Catalogue No. 84-204, and final population estimates, Demography Division.

Owing to this lack of comprehensive population-based data, one must rely on results from retrospective surveys. Two such enquiries were conducted by Statistics Canada during recent years and provide certain information: The Family History Survey conducted in 1984, and the 1990 General Social Survey (GSS). Unfortunately, only a small sample was used in conducting these surveys. Consequently, the indices derived from their data are less accurate than those which could be established with complete data.

The validity of figures from the survey can be established by comparing the lifetime fertility obtained from the survey data with that calculated using data from vital statistics. It should be noted that at no time do the results from these two sources contradict each other, and that it is logical that lifetime fertility obtained from vital statistics is higher than that from the survey since survey data relies on the recollection of events, and in some cases distant events, and on the credibility of respondents (see Table 16).

The 1990 GSS allows distribution of the sample by cohorts or groups of cohorts, as well as by completed lifetime fertility.

The number of possible comparisons is limited. Since comparison should be made only between comparable things, it is advisable to look only at cohorts whose fertility is presumed to be basically complete. Though older cohorts cause no problem, the youngest group of cohorts which can be included for comparison is the 1950-1954 group that is, women who were from 35 to 39 years of age at the time of the survey.

With regards to the evolution of completed fertility, analysis confirms what is already well-known: the disappearance of high-order births; *the predominance of order 2 births; and, the reappearance of childlessness⁴ after it had diminished for a few generations*. Among the 1950-1954 cohort, 22.5% of women were childless, and this number would not likely decline by much, since among the previous cohort (1945-1949), which contained *women from 40 to 44 years of age at the time of the survey, 20.5% were childless* – a much higher proportion than for the previous cohort.

The Childbearing Period

Here again, the GSS only confirms a positive relationship between average age at first birth and the size of lifetime fertility. This is only logical, considering that to produce a large number of offspring, one must start early, and stop late, in life.

Certain figures seem to indicate that the average elapsed time of family formation has tended to diminish. At identical levels of lifetime fertility, the interval between births has shrunk within younger cohorts, at least up to four-child

⁴ At the beginning of this century, childlessness among women in their reproductive ages was frequent. But fertility *per se* was high because of the high fertility of fecund women.

Table 15. Average Age of Mother at Birth by Parity, 1987 and 1989¹

Province	Parity			
	1	2	3	4
1987				
Newfoundland	23.97	26.99	29.39	31.22
Prince Edward Island	24.28	27.23	29.41	31.62
Nova Scotia	24.77	27.65	29.45	31.25
New Brunswick	24.77	27.40	29.35	31.28
Quebec	25.67	28.07	29.80	31.34
Ontario	25.88	28.50	30.27	31.48
Manitoba	24.90	27.36	28.85	29.74
Saskatchewan	24.01	26.35	28.27	29.46
Alberta	24.95	27.38	28.91	30.16
British Columbia	25.85	28.14	29.66	30.91
Yukon	24.81	27.63	28.98	30.02
Northwest Territories	22.22	24.88	26.56	27.74
Canada	25.47	27.97	29.64	30.87
1989				
Newfoundland	24.31	27.25	29.32	30.76
Prince Edward Island	24.91	27.76	29.40	30.56
Nova Scotia	24.91	27.70	29.81	31.66
New Brunswick	24.46	27.20	29.25	30.94
Quebec	25.86	28.29	30.01	31.50
Ontario	26.13	28.71	30.55	31.82
Manitoba	24.94	27.59	29.03	29.87
Saskatchewan	24.28	26.69	28.30	29.37
Alberta	25.19	27.68	29.26	30.21
British Columbia	25.98	28.42	29.87	31.17
Yukon	25.40	27.48	29.67	29.42
Northwest Territories	22.96	24.84	26.42	28.24
Canada	25.69	28.20	29.88	31.05

¹ Calculations based on fertility rates.

Source: G.S.S., 1990. Calculations done at the Demography Division, Statistics Canada.

families. The interval between first and last child in a two-child family from the 1915-1925 cohort was 4.4 years, while that for 1950-1955 cohort was around 3.5 years. The interval between first and last child in three-child families was 8.1 years for the cohort born at the beginning of the century, but it would appear to be only 6.9 years for the 1950-1954 cohort. There is also a difference between first and last child in the case of four-child families: 11 years at the beginning of the period, and 8.4 years for more recent cohorts.

Table 16. Distribution (in percent) of Women by Number of Children Ever Born in Selected Cohorts, Completed Fertility

Cohort	Percentage of Women by Number of Children Ever Born							Number of Cases	Fertile Women (%)	Number of Children per Woman	
	0	1	2	3	4	5	6	7+		Vital Statistics	Survey
1950-1954	22.5	15.0	40.1	16.6	4.4	1.3	-	-	77.4	1.88	1.69
1945-1949	20.5	14.6	39.0	18.0	5.6	1.7	6.6	-	79.5	2.13	1.81
1940-1944	16.7	12.1	33.1	20.8	10.4	4.6	2.4	-	83.3	2.52	2.20
1935-1939	11.0	11.5	29.7	24.2	11.3	6.3	2.7	3.3	89.0	2.96	2.61
1930-1934	11.3	7.7	18.1	24.2	15.6	10.4	4.3	8.3	88.7	3.31	3.19
1925-1929	12.0	10.2	20.4	18.3	17.1	6.3	4.5	11.1	88.0	3.27	3.22
1920-1924	14.7	8.8	21.3	16.6	14.0	9.1	6.4	9.1	85.3	3.28	3.14
1915-1919	16.9	12.8	21.0	14.9	11.4	7.1	5.5	10.4	83.1	2.90	2.97

Source: Statistics Canada; General Social Survey 1990.

For Quebec, Madeleine Rochon⁵ has provided statistics which show the same trend towards an abbreviation of women's reproductive period, which she attributes to effective birth control. According to the 1984 Canada Fertility Survey, *couples which include one sterilized partner accounted for 3% of couples in which the woman was childless, 28% where the woman had one child, 52% where the woman had two children, and 74% involving three children.*

A longer interval between the next-to-last and the last child is also evidenced in comparison to intervals between previous children. Finally, excluding age at marriage and children born out of wedlock, the figures suggest that maternal age at the birth of the last child is decreasing, irrespective of completed family size.

Table 17. Age of Mother at Last Birth

Cohort	Children Ever Born					
	1	2	3	4	5	6
1915-1925	29.2	31.6	33.9	36.0	38.2	40.0
1945-1955	27.8	28.5	29.6	30.9	31.8 ¹	35.3

¹ Only for the 1950-55 cohort.

Source: Statistics Canada; *General Social Survey 1990*.

MORTALITY

For 1989, the life table established by using the estimated 1989 population as the denominator, and the average number of deaths in 1988 and 1989⁶ as the numerator, gives a life expectancy of 73.63 years for males and 80.36 years for females in Canada. These figures are probably slightly optimistic, since the 1988 life expectancy calculated in the same manner had to be revised downward. Indeed the three-year average 1988 table using the deaths of 1989, gives a slightly lower life expectancy than that provided by the provisional table - 73.32 for males and 80.03 for females, instead of 73.44 and 80.22. Last year's indication of a slower rate of progression in life expectancy is not challenged by the current data.

The expectation of life at birth for women is identical in Quebec and Ontario, but for men, there is a 1.37 year difference in favour of Ontario. One of the most obvious observations is the higher life expectancy, particularly for men, west of Quebec.

⁵ See M. Rochon, "Termes et questions démographiques, un nouveau regard". Paper presented at the ACFAS symposium held in Quebec City on May 15 and 16, 1990.

⁶ In fact, this average is arrived at using deaths in 1988 and twice the deaths in 1989.

Table 18. Estimated Life Expectancy at Birth, Canada and Provinces, 1989 (in Years)

Provinces	Males	Females
Newfoundland	73.28	79.38
Prince Edward Island	72.87	81.09
Nova Scotia	72.63	79.74
New Brunswick	73.33	80.31
Quebec	72.65	80.27
Ontario	74.02	80.23
Manitoba	73.55	80.51
Saskatchewan	74.32	81.31
Alberta	74.26	80.73
British Columbia	74.43	80.84
Canada	73.63	80.36

Source: Calculations made at the Demography Division.

Confirmation of the slowdown in progress in life expectancy can be found in analyzing the mortality rates for the principal cause of death – diseases of the circulatory system. From Table 19, it is evident that mortality from these causes fell from 438 deaths per 100,000 population in 1969, to 340 in 1981. From 1981 to 1987, the drop was less precipitous, and from 1987 on, there has been no change whatsoever in the rate. The history of the battle against mortality has always been punctuated by periods of stagnation interspersed within periods of tremendous change.

The same observation can be made for deaths from motor vehicle accidents. Rates from this cause dropped significantly throughout the 1970s, but have been stable since 1981 at 23 per 100,000 among males, and 9 per 100,000 for females.

AIDS

The number of deaths attributable to AIDS continues to climb. In total, H.I.V. claimed 525 victims in 1987, 661 in 1988, and 851 in 1989. This represents an increase of 25% from 1987 to 1988, and of 29% from 1988 to 1989. But in the evolution of a disease as complex as AIDS, a three-year data series has little information to offer. It can be noted, however, that *AIDS victims are almost exclusively male (94% in 1989), and that the increase in female deaths slowed between 1988 and 1989*, with the percentage increase in deaths dropping from 27% to 15% between 1987 and 1988. In addition it can be determined that mortality among the young has not increased since 1987, and that the concentration of deaths in the 30 to 44 age group among males (61% in 1989) continues. In terms of geographical distribution of AIDS, it is not possible to be anything but circumspect. Ninety percent of AIDS deaths occur in the provinces of Ontario, Quebec and British Columbia. Thus, one could assume that it is

Table 19. Mortality Rates from Diseases of the Circulatory System by Sex, Canada 1969-1989¹

Year	Diseases of the Circulatory System ²	Ischemic Heart Diseases ³	Cerebro-vascular Diseases ⁴
Males			
1969	438.47	299.14	74.41
1970	431.50	297.73	73.57
1971	423.36	289.09	72.45
1972	425.73	289.79	73.58
1973	419.72	284.53	71.00
1974	420.32	285.07	70.39
1975	404.52	274.18	67.49
1976	400.27	271.66	64.17
1977	398.39	266.14	61.21
1978	374.85	253.05	58.69
1979	362.97	237.96	56.50
1980	354.56	232.80	53.49
1981	340.03	224.87	51.36
1982	333.28	218.93	48.09
1983	320.20	209.96	45.33
1984	306.12	200.68	43.98
1985	298.76	195.73	41.77
1986	291.37	188.44	40.45
1987	277.52	179.75	39.79
1988	269.73	189.09	38.09
1989	269.73	189.09	38.09
Females			
1969	363.54	204.35	90.58
1970	351.71	200.24	87.32
1971	342.54	192.24	86.41
1972	341.65	191.55	86.31
1973	335.05	190.07	81.73
1974	332.95	190.05	81.81
1975	318.28	178.17	79.46
1976	309.05	174.28	74.45
1977	298.59	169.11	69.92
1978	289.00	164.90	66.12
1979	278.88	151.93	64.85
1980	277.09	150.92	61.87
1981	263.16	143.52	59.65
1982	259.87	141.57	57.13
1983	247.29	133.93	54.02
1984	239.43	131.70	50.98
1985	233.61	125.74	49.98
1986	230.55	124.51	49.67
1987	218.95	118.21	46.46
1988	213.21	114.43	46.70
1989	213.21	114.43	46.70

¹ Rate per 100,000, standardized on the structure of the 1976 Canadian population.

² Causes 390-459, 9th Revision of the ICD.

³ Causes 410-414, 9th Revision of the ICD.

⁴ Causes 430-438, 9th Revision of the ICD.

Table 20. Death Rates¹ by Age Group and Sex Caused by Traffic Accidents (Causes 810 to 819 of the I.C.D.), Canada, 1971-1989

Age Group	1971		1981		1982		1983		1984		1985		1986		1987		1988		1989	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
0-4	11	9	8	6	5	4	5	4	3	5	4	4	5	4	6	6	5	3	6	4
5-9	17	13	10	7	6	6	9	5	7	5	8	6	6	5	7	4	7	6	6	5
10-14	15	8	13	5	10	6	9	4	8	5	7	5	8	4	9	5	8	5	7	4
15-19	63	25	64	19	48	16	44	16	46	13	47	16	44	16	46	16	45	16	41	17
20-24	86	21	69	17	51	11	57	13	49	12	53	13	48	12	51	13	48	12	45	15
25-29	48	13	43	12	33	9	32	9	32	9	32	8	29	9	33	9	31	8	33	10
30-34	39	9	33	9	22	7	26	8	22	6	23	7	22	7	24	8	25	8	25	8
35-39	34	13	27	6	16	9	21	7	19	8	20	8	20	6	19	8	20	6	21	9
40-44	30	12	26	9	18	8	21	6	19	8	20	8	17	8	16	7	18	6	18	8
45-49	33	12	27	9	22	7	15	9	17	7	17	10	16	7	17	8	16	7	16	8
50-54	33	12	25	12	17	7	19	9	18	8	14	9	15	8	17	10	15	6	15	7
55-59	35	16	25	8	20	9	18	11	18	9	15	11	21	10	18	9	16	11	17	9
60-64	36	20	27	13	17	11	19	8	18	9	20	9	15	11	20	9	19	9	20	11
65-69	45	24	31	14	21	14	17	10	17	9	17	13	19	13	25	13	19	10	22	15
70-74	47	21	29	14	28	17	23	15	23	15	28	16	25	16	26	16	25	16	29	15
75-79	47	25	33	21	32	14	30	15	37	23	31	16	33	19	26	18	34	15	34	16
80-84	55	23	37	19	45	16	38	19	41	17	35	19	33	15	46	16	37	22	57	15
85+	40	16	51	14	38	8	43	8	34	9	48	11	37	12	35	12	37	14	45	9
Standard- dized Rate ²	39	13	32	11	24	9	24	9	23	9	23	10	22	9	24	9	23	9	23	10

¹ Rate per 100,000.

² Standardized on the 1976 population.

Toronto, Montreal and Vancouver that carry the weight of this provincial concentration, and that AIDS is a big city disease. But since these cities contain the largest proportion of the population, it is also true that they contain the treatment centres to which AIDS sufferers gravitate.

Table 21. Deaths from Human Immunodeficiency Virus (H.I.V.) (Causes 042-044) by Broad Age Group and Sex, Canada, 1987-1989

Year	Sex	Age Groups					Total
		0-14	15-29	30-44	45-59	60 +	
1987	Male	1	85	293	87	22	488
	Female	5	7	12	8	5	37
1988	Male	2	96	361	126	29	614
	Female	3	10	28	7	9	47
1989	Male	3	124	485	164	21	797
	Female	2	10	20	10	12	54

Source: Statistics Canada, unpublished information available from the Canadian Centre for Health Information.

INTERNATIONAL MIGRATION

Provisional figures for 1990 report 212,166 landed immigrants, a figure that is within 3,000 of the number estimated in the 1990 report. Compared to 192,000 landed immigrants in 1989, this figure represents a substantial rise of 20,165, or 10.5%. It was thought that this increase was due to a high level of arrivals from Eastern Europe following the opening of borders resulting from political change. But this does not appear to be so, since arrivals from Romania and the USSR increased only minimally. This may be due to inevitable delays in processing cases.

In terms of overall immigration, the part played by Europe continues to be stable (23.6%) in 1990. Even though Poland remains the European country providing the greatest number of immigrants (16,446) the total number for 1990 is only marginally higher than that of 1989. Far behind, the United Kingdom is in second position, with 6,701. On the other hand, Portugal and the Azores together made a greater contribution (7,639 persons). Asia's contribution continues to rise, and is expected to grow to 53.2% in 1990, from 49.6% in 1989. It is, however, important to make a distinction with regard to nomenclature, at least for that part of Western Asia commonly referred to as the Middle East. This distinction has been systematically made by international organizations who study migration. In 1990, Western Asian⁷ countries, including Israel, contributed 22,692 persons. Southern, Eastern and South Western Asia contributed 90,162 immigrants, or 42.5% of all landed immigrants.

⁷ Included in Western Asian countries are: Lebanon, Syria, Iran, Iraq, Jordan, Kuwait, Saudi Arabia, Bahrain, Qatar, both Yemens, United Arab Emirates and Israel.

Table 22. Immigration to Canada by Country of Birth, 1968-1990

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
EUROPE	118,791	87,842	75,006	52,733	51,175	70,080	84,780	68,733	49,470	40,967	30,003
Great Britain	33,814	28,790	23,688	14,230	16,637	23,533	33,088	29,454	19,257	16,634	10,698
Portugal	8,720	7,917	8,594	9,776	9,280	14,417	17,268	9,158	6,194	4,238	3,420
France	5,370	3,612	2,958	2,059	1,880	2,411	2,811	2,831	2,415	2,090	1,322
Greece	7,952	7,106	6,440	4,822	4,008	5,800	5,654	3,954	2,429	1,874	1,324
Italy	20,880	10,685	8,659	5,937	4,847	6,176	5,818	4,919	4,008	3,088	2,647
Poland	1,854	1,563	1,403	1,527	1,664	1,629	1,373	1,191	1,366	1,293	1,153
Other	40,201	28,163	23,264	14,382	12,859	16,114	18,768	17,226	13,801	11,750	9,439
AFRICA	7,002	5,953	4,017	3,463	8,504	9,977	12,792	11,715	8,617	6,595	4,561
ASIA	23,775	24,451	23,682	24,230	25,938	46,777	55,290	52,024	46,482	32,904	25,332
Philippines	2,762	3,138	3,305	4,213	4,113	6,886	9,897	7,688	6,109	6,101	4,368
India	4,675	6,736	7,089	6,301	6,746	11,672	16,016	13,401	8,562	6,772	6,077
Hong Kong (B.C.C.)	3,353	3,353	2,250	2,581	3,396	9,155	7,673	6,438	6,442	3,903	2,825
China	5,401	5,610	3,397	3,694	3,813	6,842	6,581	6,235	6,003	4,037	3,181
Other	7,584	5,614	7,641	7,441	7,870	12,222	15,123	18,262	19,366	12,091	8,881
NORTH AND CENTRAL AMERICA	18,482	20,927	22,670	22,508	21,137	23,861	25,147	19,268	16,494	12,755	9,713
United States	17,076	19,258	20,859	20,723	19,176	21,391	22,454	16,729	14,278	10,723	8,254
CARIBBEAN AND BERMUDA	9,021	13,925	13,371	11,300	8,774	19,809	24,441	18,790	15,066	11,822	8,330
AUSTRALASIA	4,145	3,523	3,462	2,182	1,646	1,893	1,928	1,574	1,367	1,147	944
SOUTH AMERICA	2,368	4,158	4,506	4,598	4,036	10,353	12,204	13,102	10,496	7,774	6,682
OCEANIA	..	..	..	..	..	..	1,882	2,675	1,437	950	724
OTHER	390	752	999	886	796	1,450	1	..	..	..	24
TOTAL	183,974	161,531	147,713	121,900	122,006	184,200	218,465	187,881	149,429	114,914	86,313

Table 22. Immigration to Canada by Country of Birth, 1968-1990 - Concluded

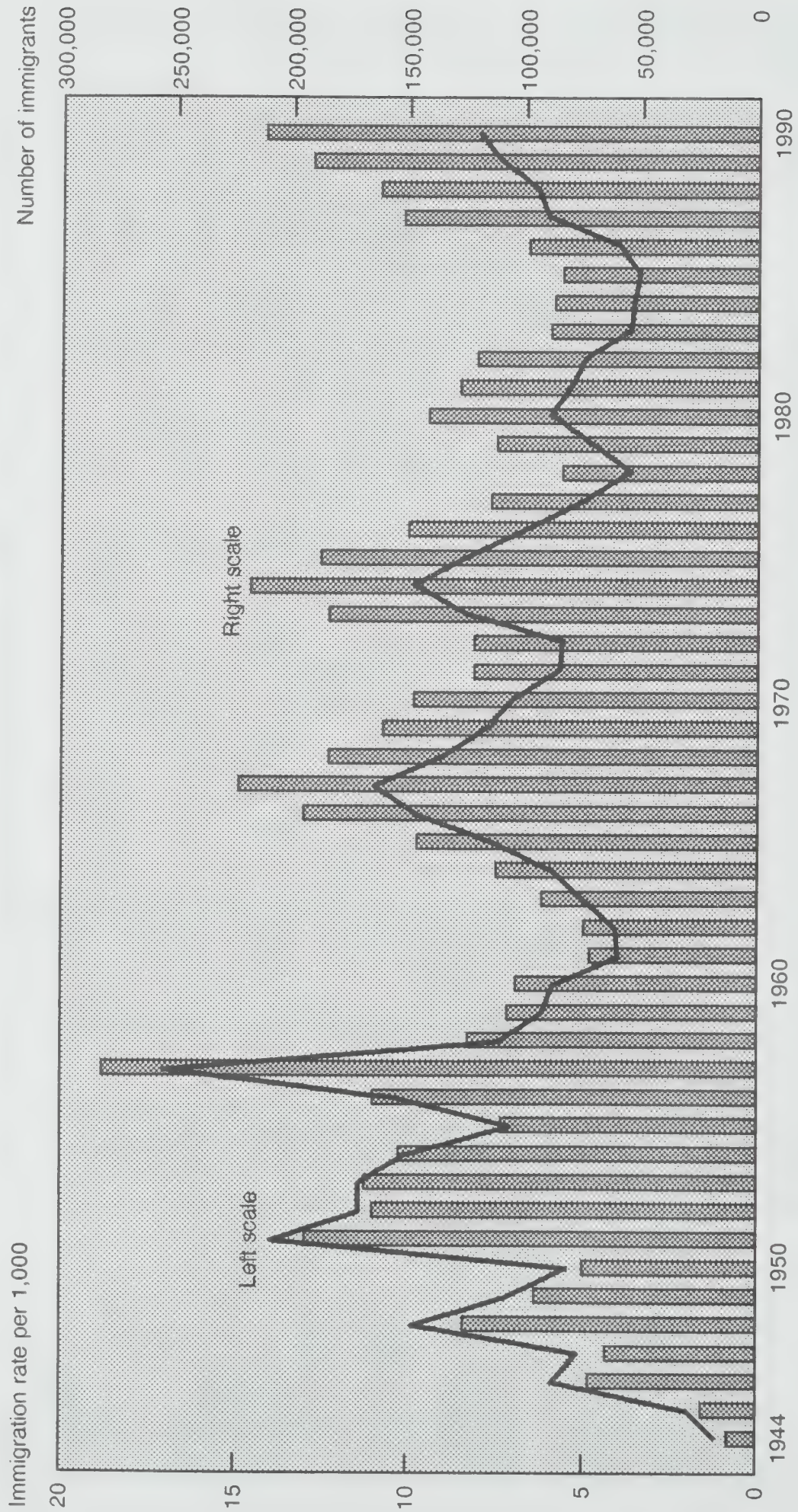
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990 ¹
EUROPE	32,633	40,210	44,784	44,356	23,664	20,581	18,530	22,518	36,486	38,598	50,844	50,059
Great Britain	11,806	16,445	18,912	14,525	4,945	4,657	3,998	4,612	7,650	7,476	6,244	6,701
Portugal	3,742	4,222	3,292	2,308	1,373	869	917	1,981	5,904	3,976	5,094	5,396
France	1,547	1,461	1,681	1,821	1,237	970	994	1,124	1,486	1,809	2,128	1,942
Greece	1,187	1,044	924	884	617	578	579	555	750	590	798	1,545
Italy	2,134	1,873	2,057	1,496	879	892	733	785	1,123	955	1,204	1,058
Poland	1,263	1,395	4,093	9,259	5,374	4,640	3,642	5,283	7,132	9,308	16,042	16,446
Other	10,954	13,770	13,825	14,063	9,239	7,975	7,667	11,480	12,441	14,484	19,334	16,971
AFRICA	4,412	5,383	5,901	5,196	3,913	3,851	3,912	5,189	9,048	9,497	12,483	13,691
ASIA	51,740	73,026	50,759	43,863	38,183	42,730	39,438	42,417	69,146	82,334	95,393	112,854
Philippines	3,927	6,147	5,978	5,295	4,597	3,858	3,183	4,203	7,420	8,636	11,907	12,492
India	5,486	9,531	9,415	8,858	7,810	6,082	4,517	7,481	10,635	11,864	10,738	12,513
Hong Kong (B.C.C.)	3,548	3,874	4,039	4,452	4,238	5,013	5,121	4,318	12,618	18,033	15,694	22,789
China	5,821	8,965	9,798	6,295	5,321	5,769	5,166	4,178	6,611	7,784	9,001	13,971
Other	32,958	44,509	21,529	18,963	16,217	22,008	21,451	22,237	31,862	36,017	48,053	51,089
NORTH AND CENTRAL AMERICA	9,128	9,442	10,183	10,030	10,200	10,223	10,898	12,412	13,691	11,435	11,899	12,912
United States	7,821	8,098	8,695	7,841	6,136	5,727	5,614	6,094	6,547	5,552	5,814	4,995
CARIBBEAN AND BERMUDA	6,535	7,515	8,797	8,717	7,258	5,696	6,240	8,948	11,210	9,440	10,967	11,721
AUSTRALASIA	1,068	1,215	1,020	758	394	430	399	449	540	525	634	714
SOUTH AMERICA	5,810	5,381	6,114	6,892	4,825	4,046	4,273	6,546	10,833	7,178	8,595	8,544
OCEANIA	736	944	1,024	1,183	720	599	612	740	1,144	1,135	1,186	1,671
OTHER	34	1	36	152	..	83	..	..	..	..	..	..
TOTAL	112,096	143,117	128,618	121,147	89,157	88,239	84,302	99,219	152,098	160,143	192,001	212,166

¹ Preliminary data.

Source: Employment and Immigration Canada, *Immigration Statistics*.

Figure 11

Numbers of Immigrants and Immigration Rates, Canada, 1944-1990



Source: *Employment and Immigration Canada, Immigration Statistics, 1990.*

Immigration from the Middle East thus represented 10.7% of all arrivals in 1990. Of those 22,700 persons, more than half (12,900) were Lebanese, two-thirds of which settled in Quebec (8,363) probably because they are Francophones.

Among Asian countries who contributed an increasing proportion of immigrants, the Philippines should be noted. In 1974, arrivals from the Philippines totalled 9,900 persons out of a total of 218,500 immigrants. In 1990, however, following a new surge that started in 1985, their number reached 12,500. Two other Asian countries, (the most populous on earth), also stand out for contributing a higher number of immigrants: India, with 12,500, and China, with 14,000. *The record, however, is still held by the Territory of Hong Kong, with 22,800 arrivals.* This massive outflow is fuelled by the impending restitution of this former British colony to mainland China. Africa's contribution remains weak, with 6.5% of the total. This percentage falls to 5.3%, or only 11,191 persons, when Egyptians are excluded. The latter are in fact part of the Middle East, even though they belong geographically to the African continent.

Destinations of Immigrants

Economic conditions seem to affect the destination choice of international immigrants to a smaller degree than that of internal migrants. Several factors may explain this phenomenon. Provinces that already have important immigrant minorities are favoured because, for a significant portion of international immigration, the status of landed immigrant is granted under the family reunification provision. On the other hand, independent immigrants are less knowledgeable about the short-term fluctuation of the employment market. Consequently though Ontario did not have the economic growth in 1990 that it has had regularly in recent years, 53% of immigrants chose it as their destination. This proportion was slightly smaller than in 1989 (55%). Quebec attracted only a slightly larger proportion of immigrants than in the previous year (18.9% versus 18%), and this increment is probably due to the large number of arrivals from Lebanon (see above).

British Columbia remained stable at 13.4%. The general picture is practically unchanged compared to last year, and together, Quebec, Ontario, Alberta and British Columbia attracted slightly more than 94% of immigrants (see Table 24). But while Ontario attracted 53% of all immigrants, it received 63.5% of all Europeans. Quebec, on the other hand, was the destination of only 13.9% of this group. Of the African immigrants, 49% went to Ontario and 34% to Quebec. Of those from Asia (excluding the portion from the Middle East), 47,216 persons, or 51.7%, went to Ontario, while 10.8%, mainly Vietnamese, went to Quebec. Of Asians 21.3% headed to British Columbia. Haitian immigrants from the Caribbean (2,053 out of 2,365) seem interested only in Quebec because of the language, and in Ontario when they come from Jamaica and from Trinidad and Tobago (86%). Few South Americans go to Quebec (20%), but 68% go to Ontario.

Table 23. Countries From Which Over 1,000 Immigrants Were Received in 1989 and 1990

Country of Birth	1989	1990 ¹
Hong Kong	15,694	22,789
Poland	16,042	16,446
China	9,001	13,971
Lebanon	6,927	12,900
India	10,738	12,513
Philippines	11,907	12,492
Vietnam	9,581	9,142
Great Britain	7,338	6,701
Portugal	5,094	5,396
Jamaica	4,008	5,001
United States	5,814	4,995
El Salvador	2,933	4,341
Iran	4,301	3,937
Taiwan	3,185	3,443
Sri Lanka	2,728	3,413
Romania	2,213	2,891
Guyana	3,376	2,876
U.S.S.R.	2,177	2,804
Trinidad and Tobago	3,010	2,799
Egypt	1,757	2,500
Ethiopia	2,309	2,408
Haiti	2,393	2,365
The Azores	2,754	2,243
Pakistan	2,039	2,117
South Korea	3,008	2,062
Malaysia	2,424	1,956
Yugoslavia	2,073	1,949
France	2,128	1,942
Syria	1,482	1,848
West Germany	1,951	1,545
Morocco	1,182	1,453
Czechoslovakia	1,156	1,386
Peru	1,677	1,376
Chile	1,044	1,306
Israel	1,296	1,229
Mexico	1,029	1,199
Fiji	736	1,135
Somalia	444	1,124
Italy	1,204	1,058
Kenya	1,344	1,040
Guatemala	774	1,025
South Africa	1,413	995
Afghanistan	1,031	990
Hungary	1,031	820
Singapore	1,221	818
Iraq	1,123	807
Ireland	1,308	792
Kampuchea	1,720	716
Total	166,967	191,054

¹ Preliminary data.

Table 24. Percentage Distribution of Immigrants Admitted by Intended Province of Destination, Canada, 1956-1990

Province	Year												
	1956	1961	1971	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990 ¹
Newfoundland	0.3	0.5	0.7	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.2	0.3
Prince Edward Island	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1
Nova Scotia	1.0	1.3	1.5	1.1	1.0	0.9	1.2	1.2	1.1	0.8	0.8	0.8	0.7
New Brunswick	0.5	1.1	0.9	0.8	0.6	0.6	0.7	0.7	0.7	0.4	0.4	0.5	0.4
Quebec	19.0	23.6	15.8	16.4	17.6	18.4	16.6	17.7	19.6	17.6	15.9	17.8	18.9
Ontario	55.0	50.9	52.8	42.7	43.8	44.9	47.1	48.3	50.0	55.8	55.0	54.6	53.1
Manitoba	3.5	3.5	4.4	4.2	4.1	4.5	4.4	4.1	3.8	3.2	3.1	3.2	3.1
Saskatchewan	1.3	1.9	1.2	1.9	1.8	2.0	2.4	2.3	1.9	1.4	1.4	1.1	1.1
Alberta	6.0	6.7	7.1	15.0	14.8	12.0	12.1	10.7	9.8	7.9	8.7	8.4	8.8
British Columbia	10.8	10.2	15.5	17.1	15.7	16.2	15.0	14.5	12.7	12.4	14.3	13.2	13.4
Yukon and Northwest Territories	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Unknown	2.4	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total (in %)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total (in number)	164,857	71,689	121,900	128,618	121,147	89,157	88,239	84,302	99,219	152,098	161,929	192,001	212,166

¹ Preliminary data.

Source: Employment and Immigration Canada, *Immigration Statistics*, Catalogue No. WH-5-006.

Temporary Migration

With regard to immigration, the reason why the focus has always been on the number and fluctuation of landed immigrants is that in the minds of the majority until recently, immigration to Canada has always been viewed as an almost definitive move. Yet this has never been true. Increasingly, however, changes in the means of communication and the organization of trade and commerce at the international level facilitate and even encourage temporary migration. Certainly, this type of migration is as old as the world, and has been quite significant during certain periods, for instance between countries like Italy and Argentina. In Canada, however, there has never been a great deal of attention paid to this category of persons, and recent or long-term Canadians who left Canada temporarily or for ever have also been somewhat neglected. Two researchers from Demography Division⁸ recently studied those questions in an attempt to evaluate the dimension of the two phenomena represented by temporary immigrants and returning Canadians.

In this case, only long-term temporary immigrants were considered, that is, persons having stayed at least 12 months in Canada. Such persons belong to the following categories: visitors; holders of worker's permit; students; and, holders of special ministerial permits.

Since certain persons may belong to more than one of these categories, the total number of permits for all categories is higher than the total number of individuals. On the other hand, only the legal immigrant population is known each year when the survey is conducted. Table 25 shows that during the last decade, the number of long-term temporary immigrants rose, specially because of the increase in work permits. *Thus, continually, there would seem to be some 150,000 temporary residents in Canada, and this population has tended to grow over time.*

Certain points should be noted concerning the origin of temporary immigrants. At present, immigrants from Hong Kong represent an important portion of the group. In addition, it is not surprising that Americans are found in significant numbers because of their proximity. However, the importance of Hong Kong in this category of immigrants coincides with the portion of permanent immigrants from this country, which reinforces the idea that people from Hong Kong perceive Canada as an attractive land of welcome when the political situation of the island is about to change.

That the demographic characteristics of *this population of temporary immigrants* is very different from that of the Canadian population is not

⁸ See M. Michalowski and C. Fortier, 1990: "Two Neglected Categories of Immigrants to Canada: Temporary Immigrants and Returning Canadians" *Statistical Journal of United Nations Economic Commission for Europe*. Vol. 7, No. 3 IT5-204.

Table 25. Long-term Temporary Immigrants¹, by Category and Canadian Returnees, Canada, 1982-1988

Subcategory	1982	1983	1984	1985	1986	1987	1988
All Temporary Immigrants ²	134,288	140,450	142,042	138,666	144,396	166,554	175,580
Visitors	20,568	19,624	17,819	16,984	17,614	19,298	21,145
Workers	57,989	63,772	71,099	74,954	84,548	105,730	111,880
Students	56,425	61,202	59,305	54,090	50,096	48,409	50,454
Ministers Permit	36,906	36,839	36,361	34,248	32,230	35,721	32,709
Total of the Subcategory	171,880	181,437	184,584	180,276	184,488	209,158	216,188
Canadian Returnees	28,302	29,713	30,817	31,328	35,581	33,768	33,728

¹ Number of people holding a valid permit of at least one year at the time of the inventory.

² One person can have more than one permit, the sum of permits is higher than the number of individuals.

Source: Statistics Canada, Demography Division, estimates based on:

- (1) Employment and Immigration Canada,
- (2) the M0024 Family Allowance file of Health and Welfare Canada,
- (3) Customs and Excise Canada, Form E311 file.

surprising, but that it differs from that of the landed immigrants population is. Salient points of departure include:

- 1) It is *highly male dominated*. This male dominance fluctuates from year to year, but at present is in the order of 30%, that is, around 130 men for 100 women⁹. Males and females are in equal number within the landed immigrant population.
- 2) *There is a higher concentration of young adults aged 20 to 34 (66.6% in 1988) in the temporary population than in the permanent immigrant population*. Furthermore, very few children (4.0%) and a very small proportion of seniors (1.6%) are temporary immigrants.
- 3) *A large and stable majority are single, with a proportion just below 60%.*

Table 26. Distribution by Age of Landed Immigrants and Temporary Immigrants, Canada, 1988

Age	Landed Immigrants %	Temporary Immigrants %
0-14	20.3	4.0
15-19	7.9	5.9
20-24	12.1	23.5
25-29	15.7	24.8
30-34	13.8	18.3
35-39	8.9	10.2
40-44	5.2	5.4
45-49	3.3	2.9
50-54	2.7	1.6
55-59	2.8	1.0
60-64	2.7	0.8
65 +	4.6	1.6
All Ages	100.0	100.0
Average Age (in years)	29.6	30.1

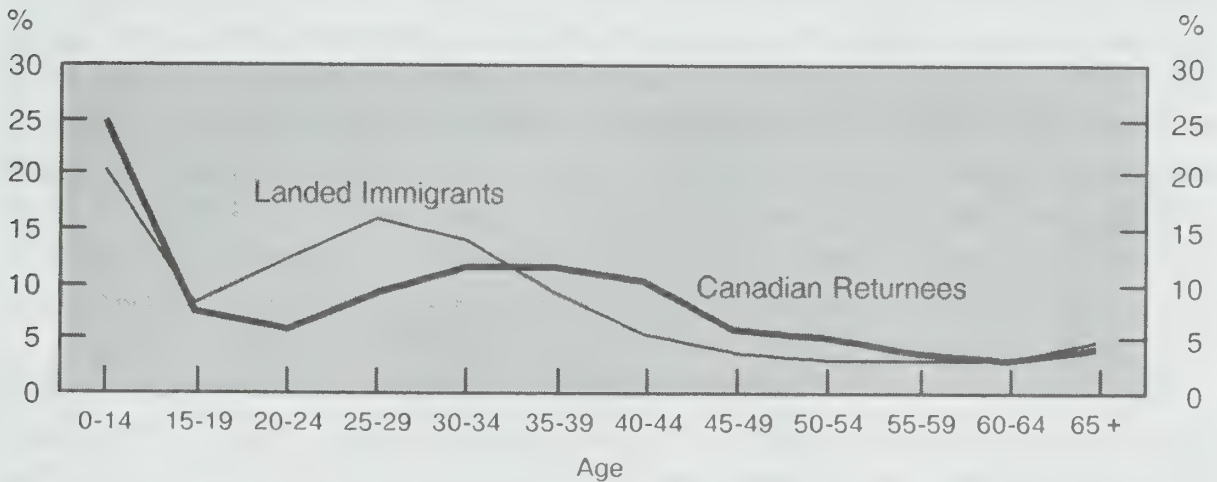
Source: Michalowski, M. and Fortier, C., op. cit. and Employment and Immigration Canada: *Immigration Statistics*.

The demographic characteristics of this population are very distinctive, and correlate strongly the temporary status under which such immigrants are admitted to Canada.

⁹ This male dominance was of 31% in 1982, 34% in 1986 and 39% in 1988.

Figure 12

Percent Distribution of Landed Immigrants and Canadian Returnees by Age Group, Canada, 1988



Source: Employment and Immigration Canada, *Immigration Statistics 1987*. Ottawa: Supply and Services Canada; and Demography Division, Statistics Canada estimates based on: the Employment and Immigration Canada Visitors Immigration Data System, and the Customs and Excise E-311 Forms File.

Returning Canadians

Each year, while some Canadians emigrate, some who have been gone for more than a year, return. Their numbers can be estimated through Family Allowance records, and research by C. Fortier indicates that they number in the area of 30,000.

What is interesting about this is not so much the numbers themselves, which affect neither volume nor population growth, but rather the way they significantly alter the picture given by the figures about emigrants from the demographic accounts. Indeed, these returning Canadians are not counted as landed immigrants, yet those who are officially known to have left Canada are counted as emigrants. Assuming that the relationship between such arrivals and departures is somewhat constant, Canada's losses are likely noticeably lower than the number of emigrants would indicate. Two interesting points should be noted:

- 1) More than half of returning Canadians had been away from Canada for less than two years;
- 2) The composition of the population of returning Canadians differs from that of the immigrant population. The majority of those who come to Canada are 20 to 34 years of age and come with their children. In contrast, returning Canadians predominantly belong to the 30 to 44 age group, and have slightly more teenagers.

INTERNAL MIGRATION

It should be noted that the interprovincial migration figures for 1988 and 1989 published last year have been modified. The observations derived from these figures are, however, unchanged. While the estimated migration figure for 1990 is still provisional and, perhaps, slightly overestimated, the exact numbers are unknown. Even when described as final, these data are only estimates. Answers to the question from the June 4, 1991 Census of Canada: "Where were you living one year ago, on June 4, 1990?" will allow a comparison to be made between the indirect estimates as made each year, and the actual count. Though only a time reference, this count is useful nonetheless.

The 1990 estimates indicate that migration is following the trend of recent years. *It seems that the situation resembles that of the early 1980s, when nearly all provinces had a negative net migration in favour of the two Western provinces. But this time, British Columbia has the lead over Alberta.* Alberta, however, continues to show a surge of vitality, with increasingly positive net migration over the past two years. Ontario's negative net migration results from a strong imbalance in its exchanges with the West (21,400 persons). This deficit for Ontario is partly offset by its advantage resulting from significant migratory exchanges with Quebec, Newfoundland and, somewhat, with the Prairies. By far, exchanges between the two gaining provinces are in favour of British Columbia (12,254).

Saskatchewan's net interprovincial migration is still strongly negative in the order of 16,000 persons. Almost all this deficit is due to exchanges with western neighbours, British Columbia and especially with Alberta.

Propensity to Migrate

Canadian provinces, losers and winners alike, exchange populations for several reasons, but economic ones dominate. Variations in the flow of arrivals and departures from one year to the next reflect the short-term reaction of part of the population "push" and "pull". Such events, however should be expressed in rates, so that the tendency to leave or to move to a province may be interpreted by comparison. Such rates, however, can be established only for departures. For arrivals, the population of the receiving province is inadequate as a denominator since it has no logical relationship with the numerator, and no other denominator is available.

Table 29 gives an interesting indication about tendencies to emigrate to another province. The figures clearly indicate that two provinces stand out for their low rates: Ontario, and Quebec which, with rare exceptions, always has the lowest rate. This observation contrasts with absolute number of departures. These rates, however, are difficult to interpret. It would be a mistake

Table 27. Interprovincial Migratory Movement, Canada, 1990

Number of Moves: 391,378

Origin	Destination											
	New-found-land	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskat-chewan	Alberta	British Columbia	Yukon	Northwest Territories
Newfoundland	0	224	2,148	861	322	7,962	397	107	1,288	870	54	178
Prince Edward Island	148	0	1,105	620	293	1,602	130	59	351	269	4	7
Nova Scotia	1,456	635	0	3,151	1,620	9,226	734	163	2,053	2,759	33	191
New Brunswick	518	435	3,376	0	2,907	6,241	374	189	1,614	1,212	49	61
Quebec	398	181	1,295	2,873	0	28,548	837	565	3,181	4,757	82	133
Ontario	5,740	1,176	8,750	6,263	21,563	0	6,926	3,014	21,309	26,614	239	545
Manitoba	232	68	632	448	937	7,873	0	3,336	6,940	8,001	111	221
Saskatchewan	103	20	330	138	391	4,729	3,363	0	17,304	8,752	152	387
Alberta	815	255	1,856	1,245	2,222	14,098	3,894	8,742	0	33,863	563	1,482
British Columbia	330	80	1,941	866	2,464	12,435	3,080	3,700	21,609	0	971	520
Yukon	14	10	38	41	59	232	37	106	699	1,068	0	171
Northwest Territories	60	7	209	77	289	591	191	312	1,495	811	362	0
In	9,814	3,091	21,680	16,583	33,067	93,542	19,963	20,293	77,843	88,986	2,620	3,896
Out	14,411	4,593	22,021	16,976	42,850	102,149	28,799	35,669	69,035	47,996	2,475	4,404
Net Migration	-4,597	-1,502	-341	-393	-9,783	-8,607	-8,836	-15,376	8,808	40,990	145	-508

Source: Demography Division, Population Estimates Section, preliminary data.

Table 28. Net Migration for Provinces and Territories, 1970-1990

Year	New-found-land	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and Northwest Territories	Total
1970	-5,950	-29	-3,967	-2,373	-41,156	54,590	-7,707	-28,358	9,898	22,579	2,473	412,559
1971	733	-129	-755	1,798	-25,005	18,580	-7,251	-17,986	2,408	25,034	2,573	405,301
1972	-189	858	2,845	241	-19,891	8,227	-7,735	-17,296	6,538	24,927	1,475	375,185
1973	-2,510	478	2,107	2,841	-14,730	-5,275	-2,200	-13,261	2,698	30,537	685	433,993
1974	-618	1,386	1,576	4,192	-11,852	-22,163	-5,400	-4,835	14,810	22,655	249	421,336
1975	915	814	4,454	7,572	-12,340	-25,057	-4,134	6,555	23,463	-2,864	622	385,327
1976	-2,732	309	361	1,640	-20,801	-10,508	-3,655	3,819	34,215	-1,490	-1,158	376,971
1977	-4,009	614	-1,277	-886	-46,536	8,596	-3,789	384	32,344	15,507	-948	366,918
1978	-3,540	25	-109	-1,644	-33,424	415	-9,557	-3,701	31,987	20,698	1,150	348,929
1979	-4,217	-225	-1,840	-2,219	-30,025	-15,317	-13,806	-3,510	39,212	33,241	-1,294	370,862
1980	-3,082	-1,082	-2,494	-4,165	-24,283	-34,919	-11,342	-4,382	46,933	40,165	-1,349	372,167
1981	-6,238	-783	-2,465	-4,766	-22,549	-19,665	-3,621	-520	40,243	21,565	-1,201	380,041
1982	261	-6	1,591	2,183	-28,169	19,614	1,498	1,743	3,961	-2,019	-657	322,634
1983	-1,092	799	3,861	2,296	-19,080	32,825	950	2,501	-26,246	4,029	-843	285,599
1984	-3,585	524	2,963	812	-20,943	36,691	-49	733	-30,591	3,505	-60	273,323
1985	-5,019	-13	-234	-1,559	-6,023	33,414	-1,755	-5,014	-9,568	-3,199	-1,030	281,275
1986	-4,682	-493	-739	-2,897	-3,020	42,916	-3,039	-7,020	-20,293	910	-1,643	302,352
1987	-4,374	301	-2,183	-1,762	-7,410	40,278	-4,751	-9,043	-27,595	17,618	-1,079	318,890
1988	-2,154	424	71	-1,215	-7,003	14,898	-8,584	-16,338	-5,535	25,865	-429	323,685
1989	-453	181	-59	1,251	-6,302	-7,150	-8,100	-16,972	2,193	35,683	-272	352,855
1990 ¹	-4,597	-1,502	-341	-393	-9,783	-8,607	-8,836	-15,376	8,808	40,990	-363	391,378

¹ Preliminary data.

Source: Statistics Canada, *Quarterly Demographic Statistics*, Demography Division, Estimates Section.

Table 29. Rate of Provincial Out-migration (per 1,000) Destinated for Other Provinces and Territories¹

Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alb.	B.C.	Yu.	N.W.T.	Yukon and N.W.T.
1970 ID	2.80	3.49	3.35	3.60	1.23	1.05	3.69	5.07	3.30	2.44	N/A	N/A	7.97
1971 ID	2.23	3.88	3.03	3.13	1.06	1.24	3.51	4.23	3.55	2.28	N/A	N/A	8.96
1972 ID	2.15	3.01	2.50	2.80	0.93	1.14	3.41	4.02	3.26	2.12	N/A	N/A	10.12
1973 ID	2.89	3.80	3.00	3.07	0.89	1.38	3.61	4.36	4.01	2.46	N/A	N/A	10.93
1974 ID	2.40	3.28	3.15	2.86	0.84	1.39	3.53	3.65	3.52	2.59	N/A	N/A	11.45
1975 ID	2.08	3.24	2.58	2.49	0.76	1.30	3.21	2.58	2.99	2.63	N/A	N/A	10.29
1976 PD	2.23	3.35	2.72	2.53	0.84	1.19	2.79	2.42	2.67	2.46	N/A	N/A	12.26
1977 PD	2.16	2.73	2.54	2.39	1.13	1.08	2.46	2.34	2.64	1.89	12.48	12.70	N/A
1978 PD	2.07	2.86	2.34	2.32	0.92	1.02	2.73	2.44	2.57	1.76	12.71	11.41	N/A
1979 PD	2.31	2.97	2.41	2.39	0.85	1.16	3.16	2.60	2.80	1.67	12.66	10.74	N/A
1980 PD	2.17	3.36	2.48	2.51	0.72	1.27	2.96	2.61	2.80	1.49	12.06	9.84	N/A
1981 ID	2.61	3.47	2.56	2.68	0.72	1.16	2.56	2.45	3.00	1.78	17.63	8.86	N/A
1982 ID	1.82	2.74	2.03	1.81	0.75	0.80	1.87	1.97	2.98	1.72	12.14	6.82	N/A
1983 ID	1.52	2.00	1.69	1.55	0.64	0.63	1.68	1.71	3.09	1.42	10.31	6.98	N/A
1984 ID	1.63	2.03	1.66	1.58	0.56	0.59	1.63	1.66	2.99	1.35	7.35	6.91	N/A
1985 ID	1.93	2.25	1.94	1.84	0.48	0.61	1.78	2.06	2.53	1.59	8.66	7.74	N/A
1986 ID	2.18	2.36	2.04	2.01	0.44	0.63	1.91	2.27	2.95	1.68	8.44	9.47	N/A
1987 PD	2.26	2.19	2.25	2.10	0.51	0.69	2.12	2.44	3.07	1.48	9.04	9.07	N/A
1988 PD	2.14	2.37	2.17	2.09	0.52	0.81	2.28	2.97	2.52	1.39	8.38	8.27	N/A
1989 PD	1.91	2.70	2.28	2.05	0.54	0.97	2.42	3.27	2.63	1.45	8.67	7.64	N/A
1990 PR	2.52	3.53	2.46	2.35	0.63	1.05	2.64	3.57	2.79	1.53	9.43	8.21	N/A
Average	2.19	2.93	2.44	2.39	0.76	1.01	2.67	2.89	2.98	1.86	10.00	8.31	10.28

ID: Final intercensal estimates.

PR: Revised postcensal estimates.

PD: Final postcensal estimates.

N/A: Not available.

¹ Between 1970 and 1975, the population is that of 1 June. For the following years, it is the average population between two consecutive 1 January.

Source: Demography Division, Estimates Section.

to consider that each province's population is homogeneous. In Quebec, needless to say, a noticeable fraction of resident population do not migrate outside the province because of the language barrier. In several provinces, current emigrants were not born in the province of departure, and often they have only recently become residents. This is reasonable in view of mobility of the Canadian population, including that of new Canadians.

Internal Migration of the Immigrant Population

Slightly over 16% of the Canadian population was born outside Canada. Except for a few Canadians who were born to Canadian parents while they were abroad, most of these 16% are long-to-short time immigrants. Once they have chosen a Canadian region of destination when they arrive, immigrants move within the country for diverse reasons. These internal migrations by immigrants may result in ethnocultural concentration levels which would be of particular interest to those concerned with Canada's growth and social welfare. A researcher from Demography Division¹⁰ has studied a number of aspects of these migration differentials, and the following information derives from that study.

For the purpose of analysis, Canada was divided into six regions comprising one or more provinces. These regions are the Atlantic, Quebec, Ontario, the Prairies, Alberta and British Columbia. The world as a whole was also divided more or less arbitrarily into regions, but in a way that reflects the distribution of the more numerous groups of immigrants to Canada (USA, Latin America and the Caribbean, the United Kingdom, Western and Northern Europe, Italy, Mediterranean Europe, Eastern Europe, Southeast Asia, the Far East, and the rest of the world).

One of the questions this study attempted to answer was about the tendency of immigrants to move within Canada, compared to the population born in Canada: viz., Is the immigrant population more or less mobile?

Data about migration are available from varied sources for very recent periods. Unfortunately, these do not provide certain crucial information such as place of birth and, in the case of immigrants, the period of immigration. Therefore, data from the census were used.

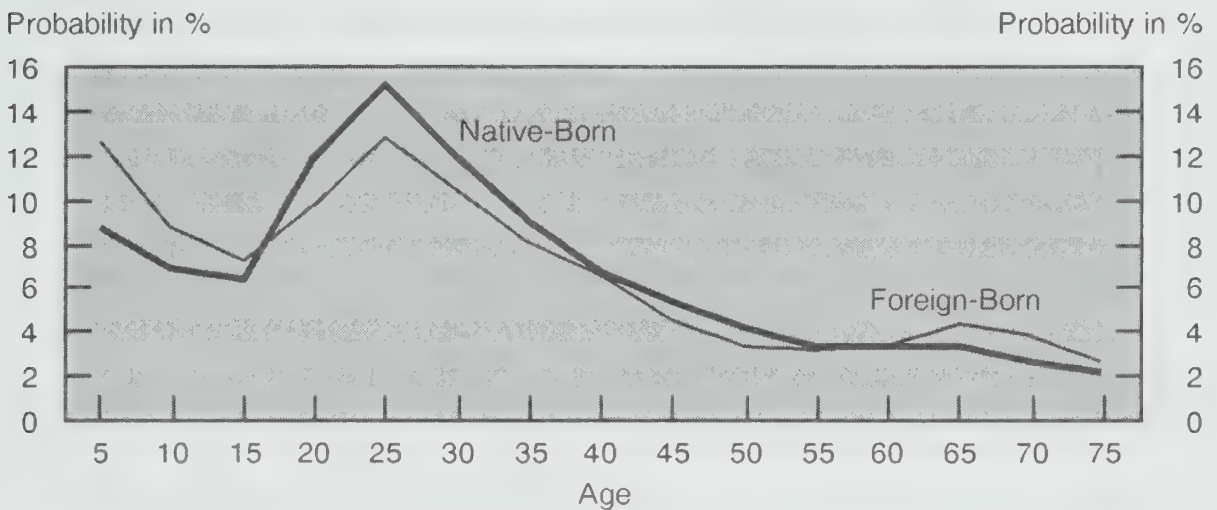
Inevitably, the evaluation of internal migration using census data only covers the population five years of age or more at the first of two consecutive censuses (in this instance, those of 1981 and 1986), and takes into account losses due to death during that interval.¹¹ Since propensity to migrate is affected

¹⁰ See A. Bélanger, "La migration interprovinciale des personnes nées à l'étranger". Working Paper. Available on request at the Demography Division.

¹¹ Emigration by immigrants should be taken into account when it represents an important phenomenon.

Figure 13

**Out-Migration Probability by Age and Place of Birth,
Canada, 1981-1986**



Source: 1981 and 1986 Census.

significantly by age, and since age-specific structure of the immigrant population differs from that of the native population, a global indicator would be of little use. Thus tendencies to migrate at the same ages should be compared between the two populations. Figure 13 provides information about this subject.

The measure only accounts for out-migrants¹² from the regions. As such, it is a measure of inter-regional mobility only. On the other hand, the situation described is only that which prevailed between 1981 and 1986, and does not purport to describe that which prevailed before, nor to predict that which will occur in the future.

In order to make a valid comparison, the probabilities have been standardized. In examining the figure, it is evident that the two populations exhibit very similar behaviours with the notable exception of a higher rate of migration specific to the Canadian-born population in the adult segment of life, and a lower rate at the two extremes of the age distribution.

A detailed examination of the probability of leaving one's province of residence between 1981 and 1986 (Table 30), shows an elevated propensity to leave the Maritimes and, oddly enough, Alberta¹³. As expected, an increased propensity to migrate is evident in the period immediately following immigration to the country.

¹² Out-migrants are defined as those who reported in 1986 that they did not currently live in the province in which they were enumerated in 1981. All moves in the intermediate period are, by definition, unknown.

¹³ Notable in this regard was the sudden and precipitous decline in the petroleum industry in the early years of the 1980s.

Table 30. Probability of Having Left, in 1986, the Province of Residence from 1981, Foreign-born Population, Canada and Regions

Place of Birth	Atlantic	Quebec	Ontario	Prairies	Alberta	British Columbia	Total
All Immigrants							
United States	5.08	5.35	2.51	5.60	7.16	4.04	4.28
Latin America	19.84	4.13	1.18	8.86	12.10	6.09	3.10
United Kingdom	9.84	15.09	1.79	7.46	9.40	3.34	3.99
Western Europe	10.67	4.73	1.75	5.97	7.58	3.53	3.63
Italy	7.32	0.82	0.27	3.16	5.17	1.37	0.68
Southern Europe	13.67	1.69	0.49	3.86	8.89	3.94	1.49
Eastern Europe	8.67	5.14	0.92	2.86	4.40	2.83	2.37
Southeast Asia	39.69	7.08	1.94	9.07	7.28	5.63	5.53
Far East	27.15	12.45	1.61	16.84	7.14	2.28	4.10
Rest of the world	17.92	5.77	2.72	11.29	8.43	3.34	4.56
<i>Born outside Canada</i>	10.83	4.88	1.38	6.54	7.72	3.40	3.26
Born in Canada	4.23	1.92	2.56	5.03	9.93	5.98	3.81
All places of birth	4.47	2.16	2.29	5.19	9.59	5.41	3.72
Immigrated between 1976 and 1981							
	20.79	6.68	2.24	12.81	9.43	6.20	5.55
Immigrated before 1976							
<i>Born outside Canada</i>	8.88	4.48	1.23	5.31	7.21	2.88	2.82

Source: Bélanger, 1991.

Distribution of the Immigrant Population in Canada

A priori, the foreign-born and native-born populations differ in respect to mobility since, for the former, two types of mobility are possible, viz., that which occurs at the time of immigration to Canada, and that which occurs after an initial choice of residence has been made. The native-born population can make only the second type of move. If only intercensal, inter-regional migration is considered, one can summarize as follows:

- 1) *the strong attractive power of Ontario among all groups*, and, to a lesser extent, of British Columbia which has a negative net migration of immigrants from Southern Europe (see Table 31).
- 2) *the difficulty among other regions, and specifically the Province of Quebec, in retaining immigrants*. Losses to other provinces almost always exceed gains for all groups of immigrants.

To the positive net inter-regional migration experienced by Ontario and British Columbia are added the large number of new Canadians who choose these provinces at the time of arrival in Canada. As such, *more than half of all immigrants currently living in Canada live in Ontario (53.4%), while a further 16.2% live in British Columbia*. The other provinces and territories share the remaining one-third. *Only 1 in 7 immigrants lives in Quebec*.

Concentration

There are certain pockets or concentrations of immigrants specific to particular regions of Canada, *but not a single region attracts more immigrants, regardless of source, than does Ontario* (see Table 32). B.C. is characterized by eclecticism: few Latin-Americans, Italians and Western European citizens, but many Asians. Immigrants from the United Kingdom and the Far East have little interest in Quebec. In the Atlantic provinces, where very few immigrants have settled (2%), Americans are the only significant group. This should be seen as a consequence of formerly intense relations between Nova Scotia and New Brunswick on one hand, and Massachusetts on the other, including from the Acadian population.

Tables combining mortality and mobility provide a somewhat theoretical but suggestive perspective of comparative migration behaviours between immigrants and persons born in Canada. Of course these are period tables, which means that they are predictive only with the assumption that cohorts will behave in the same way as the hypothetical cohort from the year for which the table has been constructed. The model is based on a combination of probabilities of migration to a certain region, and of death. Expectation of life at birth is broken down by the model into life segments in different regions encompassed by the chosen population.

Table 31. Net Migration of the Foreign-born Population, Canada and Regions, 1981-1986

Place of Birth	Atlantic	Quebec	Ontario	Prairies	Alberta	British Columbia
Immigration Period: Total						
United States	- 295	- 1,035	1,375	45	- 220	130
Latin America	- 155	- 1,780	2,130	- 220	- 295	320
United Kingdom	- 310	- 3,875	3,370	- 955	- 1,030	2,710
Western Europe	15	- 1,835	2,210	- 110	- 1,070	790
Italy	- 10	- 370	495	- 15	- 220	120
Southern Europe	- 120	- 305	1,275	- 60	- 505	- 285
Eastern Europe	15	- 1,920	2,300	- 610	- 785	1,000
Southeast Asia	- 910	- 1,230	2,350	- 1,195	720	265
Far East	- 410	- 1,145	2,210	- 870	- 225	530
Rest of the World	- 355	- 1,960	2,150	- 295	435	25
<i>Born outside Canada</i>	- 2,535	- 15,365	19,775	- 4,285	- 3,195	5,605
Born in Canada	- 7,610	- 47,900	79,095	- 205	- 25,920	2,540
All places of birth	- 10,145	- 63,265	98,870	- 4,490	- 29,115	8,145

Source: Bélanger, 1991.

Table 32. Distribution of the Canadian Population by Place of Birth, Population Aged 5 and Over, Canada, 1986

Place of Birth	Atlantic	Quebec	Ontario	Prairies	Alberta	British Columbia	Total
United States	8.70	12.34	37.73	8.18	12.96	20.09	100.00
Latin America	0.70	21.07	62.88	4.55	5.87	4.93	100.00
United Kingdom	3.20	4.04	57.14	5.18	9.63	20.80	100.00
Western Europe	2.28	14.11	47.14	5.56	11.68	19.23	100.00
Italy	0.33	23.00	65.97	1.43	3.06	6.20	100.00
Southern Europe	0.57	17.05	67.52	3.16	3.83	7.87	100.00
Eastern Europe	0.65	12.20	52.59	10.67	11.65	12.24	100.00
South-East Asia	0.97	15.14	41.99	10.67	14.65	16.57	100.00
Far East	0.73	5.42	44.94	3.73	12.92	32.26	100.00
Rest of the World	1.56	19.33	44.79	3.19	10.26	20.88	100.00
<i>Born outside Canada</i>	2.04	13.46	53.40	5.48	9.44	16.19	100.00
Born in Canada	10.44	28.55	32.69	8.66	9.19	10.47	100.00
All places of birth	9.03	26.02	36.16	8.13	9.23	11.43	100.00

Source: Census Canada, 1986, special tabulation.

Table 33. Hypothetical Distribution (in percent) of Residual Life Expectancy, by Region, Population Aged 5 in 1981

Residence	Regions of Residence of the Residual Life Expectancy (in percent)					
	Maritimes	Quebec	Ontario	Prairies	Alberta	British Columbia
Maritimes Quebec <i>Ontario</i> Prairies Alberta British Columbia	Foreign-born					
	37.0	4.2	38.9	3.3	8.4	8.2
	1.0	67.6	23.7	1.0	3.1	3.6
	0.8	2.1	89.2	1.3	3.1	3.6
	1.2	2.1	20.8	51.3	11.1	13.6
	1.4	1.8	22.6	3.9	54.0	16.3
	0.8	1.4	14.2	2.1	8.6	72.9
Maritimes Quebec Ontario Prairies Alberta British Columbia	Canadian-born					
	73.3	3.1	14.1	2.1	4.2	3.2
	1.5	86.8	8.6	0.7	1.1	1.3
	3.5	3.3	84.0	2.4	3.3	3.5
	2.2	1.4	9.5	70.3	9.4	7.2
	4.9	2.9	16.5	8.6	54.5	12.6
	2.8	1.8	11.5	5.3	11.4	67.3

Source: Bélanger, 1991.

The strong attraction exerted by Ontario on immigrants and its power to retain them are also noticeable. This attraction is always stronger than for native Canadians. For example, *this hypothetical immigrant aged 5, living in Ontario in 1981, would spend 89% of his life in this province, compared to 84% for the corresponding Canadian. By contrast, the immigrant living in the Atlantic region would spend only 37% of his remaining life in the region, and 39% in Ontario.*

The conclusion is that which was proposed as the question at the beginning of this study. When all precautions are taken to ensure a valid comparison between the foreign-born and the native-born populations, it can be concluded that the immigrant population is more mobile than is its Canadian-born counterpart, and this mobility results in a high concentration of immigrants in Ontario and, to a lesser degree, in British Columbia. While this fact is quite well known, it nevertheless deserved quantification.

Appendices

Table A1. Demographic Accounts of the Provinces and Territories, 1971-1991
(in thousands)

Year	Popula- tion ¹	Total Growth ²	Rate per 1,000	Births ²	Deaths ²	Natural Increase	Rate per 1,000	Net Migration ³
Canada								
1971	21,465.0	244.6	11.4	262.2	157.3	104.9	4.9	139.7
1972	21,709.6	232.8	10.7	347.3	162.4	184.9	8.5	47.9
1973	21,942.4	292.9	13.3	343.4	164.0	179.4	8.2	113.5
1974	22,235.3	333.4	15.0	350.7	166.8	183.9	8.3	149.5
1975	22,568.7	315.2	14.0	359.3	167.4	191.9	8.5	123.3
1976	22,883.9	274.5	12.0	360.0	167.0	193.0	8.4	81.5
1977	23,158.4	259.0	11.2	361.4	167.5	193.9	8.4	65.1
1978	23,417.4	227.1	9.7	358.9	168.2	190.7	8.1	36.4
1979	23,644.5	267.4	11.3	366.1	168.2	197.9	8.4	69.5
1980	23,911.9	309.4	12.9	370.7	171.5	199.2	8.3	110.2
1981	24,221.3	262.1	10.8	371.3	171.0	200.3	8.3	61.8
1982	24,483.4	222.3	9.1	373.1	174.4	198.7	8.1	23.6
1983	24,705.7	190.1	7.7	373.7	174.5	199.2	8.1	-9.1
1984	24,895.8	194.6	7.8	377.0	175.7	201.3	8.1	-6.7
1985	25,090.4	183.6	7.3	375.7	181.3	194.4	7.7	-10.8
1986	25,274.0	218.9	8.7	372.9	184.2	188.7	7.5	30.2
1987	25,492.9	292.9	11.5	369.7	185.0	184.7	7.2	108.2
1988	25,785.8	311.9	12.1	376.8	190.0	186.8	7.2	125.1
1989	26,097.7	354.6	13.6	392.7	191.0	201.7	7.7	152.9
1990	26,452.3	380.4	14.4	399.3	193.5	205.8	7.8	174.6
1991	26,832.7							
Newfoundland								
1971	519.0	8.2	15.8	12.8	3.2	9.6	18.4	-1.4
1972	527.2	7.2	13.7	12.9	3.3	9.5	18.1	-2.3
1973	534.4	5.4	10.1	12.9	3.4	9.5	17.8	-4.1
1974	539.8	6.6	12.2	11.5	3.3	8.2	15.2	-1.6
1975	546.4	8.4	15.4	11.2	3.2	8.0	14.6	0.4
1976	554.8	4.2	7.6	11.5	3.3	8.2	14.7	-4.0
1977	559.0	2.3	4.1	11.1	3.1	8.0	14.3	-5.7
1978	561.3	2.0	3.6	10.5	3.1	7.4	13.1	-5.4
1979	563.3	1.3	2.3	10.2	3.1	7.0	12.5	-5.7
1980	564.6	2.6	4.6	10.3	3.3	7.0	12.4	-4.4
1981	567.2	-1.2	-2.1	10.1	3.2	6.9	12.2	-8.1
1982	566.0	3.9	6.9	9.2	3.4	5.8	10.2	-1.9
1983	569.9	2.0	3.5	8.9	3.5	5.4	9.5	-3.4
1984	571.9	-0.8	-1.4	8.6	3.5	5.0	8.8	-5.8
1985	571.1	-2.4	-4.2	8.5	3.6	4.9	8.7	-7.3
1986	568.7	-1.2	-2.1	8.1	3.5	4.6	8.0	-5.8
1987	567.5	-0.1	-0.2	7.8	3.6	4.1	7.3	-4.2
1988	567.4	1.9	3.3	7.5	3.6	3.9	6.9	-2.0
1989	569.3	3.1	5.4	7.8	3.7	4.1	7.2	-1.0
1990	572.4	-0.7	-1.2	7.3	3.7	3.6	6.3	-4.3
1991	571.7							

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1971-1991
(in thousands) - Continued

Year	Popula- tion ¹	Total Growth ²	Rate per 1,000	Births ²	Deaths ²	Natural Increase	Rate per 1,000	Net Migration ³
Prince Edward Island								
1971	111.0	1.2	10.8	2.1	1.0	1.1	9.9	0.1
1972	112.2	1.4	12.5	2.0	1.1	1.0	8.5	0.4
1973	113.6	1.0	8.8	1.9	1.0	0.9	7.6	0.1
1974	114.6	2.0	17.5	1.9	1.1	0.9	7.4	1.1
1975	116.6	1.4	12.0	1.9	1.1	0.9	7.5	0.5
1976	118.0	1.0	8.5	1.9	1.1	0.8	7.2	0.2
1977	119.0	1.5	12.6	2.0	1.0	0.9	7.8	0.6
1978	120.5	1.1	9.1	2.0	1.0	1.0	8.2	0.1
1979	121.6	0.9	7.4	1.9	1.0	0.9	7.5	-0.0
1980	122.5	-0.1	-0.8	2.0	1.0	0.9	7.5	-1.0
1981	122.4	0.1	0.8	1.9	1.0	0.9	7.4	-0.8
1982	122.5	0.7	5.7	1.9	1.0	0.9	7.7	-0.2
1983	123.2	1.4	11.4	1.9	1.1	0.9	7.0	0.5
1984	124.6	1.2	9.6	2.0	1.1	0.8	6.8	0.4
1985	125.8	0.6	4.8	2.0	1.1	0.9	7.1	-0.3
1986	126.4	0.3	2.4	1.9	1.1	0.8	6.4	-0.5
1987	126.7	1.3	10.3	2.0	1.1	0.8	6.6	0.5
1988	128.0	1.4	10.9	2.0	1.1	0.9	7.0	0.5
1989	129.4	1.1	8.5	1.9	1.1	0.8	6.2	0.3
1990	130.5	-0.6	-4.6	1.9	1.1	0.8	6.1	-1.4
1991	129.9							
Nova Scotia								
1971	785.0	7.9	10.1	14.3	6.7	7.6	9.6	0.3
1972	792.9	8.5	10.7	13.5	6.9	6.6	8.4	1.9
1973	801.4	8.0	10.0	13.3	6.9	6.4	7.9	1.6
1974	809.4	7.3	9.0	12.9	6.9	6.0	7.5	1.3
1975	816.7	9.8	12.0	13.1	6.8	6.3	7.7	3.5
1976	826.5	5.7	6.9	13.0	7.0	6.0	7.3	-0.3
1977	832.2	3.6	4.3	12.4	7.0	5.4	6.5	-1.8
1978	835.8	4.4	5.3	12.5	6.9	5.7	6.8	-1.3
1979	840.2	3.5	4.2	12.4	6.8	5.6	6.6	-2.1
1980	843.7	3.2	3.8	12.4	7.0	5.4	6.4	-2.2
1981	846.9	2.1	2.5	12.1	7.0	5.1	6.0	-3.0
1982	849.0	5.6	6.6	12.3	6.9	5.4	6.3	0.2
1983	854.6	7.4	8.7	12.4	7.0	5.4	6.3	2.0
1984	862.0	6.9	8.0	12.4	6.9	5.5	6.3	1.4
1985	868.9	3.3	3.8	12.5	7.3	5.1	5.9	-1.8
1986	872.2	4.1	4.7	12.4	7.3	5.1	5.9	-1.0
1987	876.3	3.5	4.0	12.1	7.1	5.0	5.7	-1.5
1988	879.8	5.8	6.6	12.2	7.4	4.8	5.5	1.0
1989	885.6	6.0	6.8	12.5	7.5	5.0	5.6	1.0
1990	891.6	5.9	6.6	12.6	7.6	5.0	5.6	0.9
1991	897.5							

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1971-1991
(in thousands) - Continued

Year	Popula- tion ¹	Total Growth ²	Rate per 1,000	Births ²	Deaths ²	Natural Increase	Rate per 1,000	Net Migration ³
New Brunswick								
1971	630.0	8.2	13.0	12.2	4.9	7.2	11.5	1.0
1972	638.2	5.3	8.3	11.8	5.0	6.8	10.7	-1.5
1973	643.5	7.7	12.0	11.4	5.1	6.3	9.9	1.4
1974	651.2	9.5	14.6	11.4	5.2	6.2	9.6	3.3
1975	660.7	13.1	19.8	11.8	5.1	6.7	10.1	6.4
1976	673.8	7.9	11.7	12.1	5.2	6.9	10.2	1.0
1977	681.7	5.2	7.6	11.5	5.2	6.3	9.3	-1.1
1978	686.9	3.3	4.8	10.8	5.2	5.6	8.2	-2.3
1979	690.2	3.7	5.4	10.8	5.2	5.7	8.2	-2.0
1980	693.9	1.8	2.6	10.6	5.3	5.3	7.7	-3.5
1981	695.7	-0.4	-0.6	10.5	5.1	5.4	7.7	-5.8
1982	695.3	5.2	7.5	10.5	5.2	5.3	7.6	-0.1
1983	700.5	5.3	7.6	10.5	5.2	5.3	7.6	-0.0
1984	705.8	3.7	5.2	10.4	5.3	5.1	7.2	-1.4
1985	709.5	1.0	1.4	10.1	5.2	4.9	6.9	-3.9
1986	710.5	0.3	0.4	9.8	5.5	4.3	6.1	-4.0
1987	710.8	2.3	3.2	9.6	5.4	4.2	5.9	-1.9
1988	713.1	2.9	4.1	9.6	5.5	4.1	5.7	-1.2
1989	716.0	5.5	7.7	9.7	5.5	4.2	5.9	1.3
1990	721.5	4.1	5.7	9.9	5.5	4.4	6.1	-0.3
1991	725.6							
Quebec								
1971	6,017.0	22.7	3.8	89.2	40.7	48.5	8.1	-25.8
1972	6,039.7	24.7	4.1	83.6	42.3	41.3	6.8	-16.6
1973	6,064.4	38.7	6.4	84.1	42.7	41.4	6.8	-2.7
1974	6,103.1	52.5	8.6	85.6	42.8	42.8	7.0	9.7
1975	6,155.6	55.9	9.1	93.0	42.8	50.2	8.2	5.7
1976	6,211.5	51.5	8.3	93.0	42.6	50.4	8.1	1.1
1977	6,263.0	22.6	3.6	95.7	43.5	52.2	8.3	-29.6
1978	6,285.6	30.6	4.9	96.2	43.6	52.6	8.4	-22.0
1979	6,316.2	43.7	6.9	98.6	43.3	55.3	8.8	-11.6
1980	6,359.9	53.0	8.3	97.4	43.5	53.9	8.5	-0.9
1981	6,412.9	37.4	5.8	95.3	42.7	52.6	8.2	-15.2
1982	6,450.3	14.8	2.3	90.8	43.5	47.3	7.3	-32.5
1983	6,465.1	15.4	2.4	88.2	44.3	43.9	6.8	-28.5
1984	6,480.5	22.0	3.4	87.8	44.4	43.4	6.7	-21.4
1985	6,502.5	25.5	3.9	86.3	45.7	40.6	6.2	-15.1
1986	6,528.0	40.4	6.2	84.6	46.9	37.7	5.8	2.7
1987	6,568.4	50.4	7.7	83.8	47.6	36.2	5.5	14.2
1988	6,618.8	53.2	8.0	86.6	47.8	38.8	5.9	14.4
1989	6,672.0	67.6	10.1	92.4	48.3	44.1	6.6	23.5
1990	6,739.6	72.2	10.7	95.5	49.1	46.4	6.9	25.8
1991	6,811.8							

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1971-1991
(in thousands) - Continued

Year	Popula- tion ¹	Total Growth ²	Rate per 1,000	Births ²	Deaths ²	Natural Increase	Rate per 1,000	Net Migration ³
Ontario								
1971	7,656.0	113.3	14.8	130.4	56.6	73.8	9.6	39.5
1972	7,769.3	100.8	13.0	125.1	58.9	66.2	8.5	34.6
1973	7,870.1	126.3	16.0	123.8	59.9	63.9	8.1	62.4
1974	7,996.4	128.5	16.1	124.2	60.6	63.7	8.0	64.8
1975	8,124.9	103.9	12.8	125.7	60.5	65.2	8.0	38.7
1976	8,228.8	85.8	10.4	122.5	61.2	61.3	7.4	24.5
1977	8,314.6	93.3	11.2	122.8	61.4	61.3	7.4	32.0
1978	8,407.9	67.5	8.0	121.0	61.1	59.8	7.1	7.7
1979	8,475.4	64.4	7.6	121.7	61.5	60.2	7.1	4.2
1980	8,539.8	59.9	7.0	123.3	62.7	60.6	7.1	-0.7
1981	8,599.7	64.1	7.5	122.2	62.8	59.3	6.9	4.8
1982	8,663.8	97.4	11.2	124.9	63.7	61.2	7.1	36.2
1983	8,761.2	98.6	11.3	126.8	64.5	62.3	7.1	36.3
1984	8,859.8	109.4	12.3	131.3	64.7	66.6	7.5	42.8
1985	8,969.2	103.0	11.5	132.2	66.7	65.5	7.3	37.5
1986	9,072.2	129.0	14.2	133.9	67.9	66.0	7.3	63.0
1987	9,201.2	170.2	18.5	134.6	68.1	66.5	7.2	103.7
1988	9,371.4	153.4	16.4	138.1	70.7	67.4	7.2	86.0
1989	9,524.8	153.4	16.1	145.3	70.9	74.4	7.8	79.0
1990	9,678.2	162.1	16.7	148.1	71.8	76.3	7.9	85.8
1991	9,840.3							
Manitoba								
1971	984.0	5.0	5.1	18.0	8.0	10.0	10.2	-5.0
1972	989.0	3.3	3.3	17.4	8.2	9.2	9.3	-5.9
1973	992.3	9.8	9.9	17.0	8.2	8.8	8.8	1.0
1974	1,002.1	7.7	7.7	17.3	8.4	8.9	8.9	-1.2
1975	1,009.8	8.4	8.3	17.1	8.4	8.8	8.7	-0.4
1976	1,018.2	6.2	6.1	17.0	8.3	8.7	8.6	-2.5
1977	1,024.4	5.8	5.7	16.7	8.2	8.5	8.3	-2.7
1978	1,030.2	-2.4	-2.3	16.4	8.3	8.1	7.9	-10.5
1979	1,027.8	-4.8	-4.7	16.2	8.2	8.0	7.8	-12.8
1980	1,023.0	0.4	0.4	16.0	8.4	7.6	7.4	-7.2
1981	1,023.4	6.0	5.9	16.1	8.6	7.4	7.3	-1.4
1982	1,029.4	11.4	11.1	16.1	8.5	7.6	7.4	3.8
1983	1,040.8	10.1	9.7	16.6	8.5	8.1	7.8	2.0
1984	1,050.9	9.7	9.2	16.7	8.3	8.4	8.0	1.3
1985	1,060.6	7.4	7.0	17.1	8.8	8.3	7.9	-0.9
1986	1,068.0	6.6	6.2	17.0	8.9	8.1	7.6	-1.5
1987	1,074.6	6.5	6.0	17.0	8.7	8.2	7.7	-1.7
1988	1,081.1	2.6	2.4	17.0	9.1	7.9	7.3	-5.3
1989	1,083.7	4.5	4.2	17.3	8.8	8.5	7.8	-4.0
1990	1,088.2	4.4	4.0	17.5	9.1	8.4	7.7	-4.0
1991	1,092.6							

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1971-1991
(in thousands) - Continued

Year	Popula- tion ¹	Total Growth ²	Rate per 1,000	Births ²	Deaths ²	Natural Increase	Rate per 1,000	Net Migration ³
Saskatchewan								
1971	927.0	-9.9	-10.7	16.1	7.4	8.6	9.3	-18.5
1972	917.1	-10.5	-11.4	15.5	7.6	7.9	8.6	-18.4
1973	906.6	-6.7	-7.4	14.8	7.6	7.2	7.9	-13.9
1974	899.9	2.4	2.7	15.1	7.8	7.3	8.1	-4.9
1975	902.3	14.4	16.0	15.3	7.7	7.6	8.4	6.8
1976	916.7	12.9	14.1	15.8	7.7	8.1	8.8	4.8
1977	929.6	11.1	11.9	16.5	7.6	9.0	9.6	2.1
1978	940.7	6.3	6.7	16.6	7.7	8.8	9.4	-2.5
1979	947.0	8.5	9.0	16.9	7.4	9.6	10.1	-1.1
1980	955.5	8.6	9.0	17.1	7.7	9.4	9.8	-0.8
1981	964.1	9.8	10.2	17.2	7.5	9.7	10.0	0.1
1982	973.9	10.5	10.8	17.7	8.2	9.5	9.8	1.0
1983	984.4	11.4	11.6	17.8	7.6	10.2	10.4	1.2
1984	995.8	10.2	10.2	18.0	7.7	10.3	10.3	-0.1
1985	1,006.0	3.8	3.8	18.2	8.0	10.1	10.1	-6.3
1986	1,009.8	2.7	2.7	17.5	8.1	9.5	9.4	-6.8
1987	1,012.5	1.4	1.4	17.0	7.8	9.2	9.1	-7.8
1988	1,013.9	-6.2	-6.1	16.8	8.1	8.7	8.6	-14.9
1989	1,007.7	-7.0	-6.9	16.7	7.9	8.8	8.7	-15.8
1990	1,000.7	-5.4	-5.4	16.6	8.1	8.5	8.5	-13.9
1991	995.3							
Alberta								
1971	1,616.0	28.7	17.8	30.5	10.5	20.0	12.4	8.7
1972	1,644.7	32.3	19.6	29.3	10.7	18.6	11.3	13.7
1973	1,677.0	32.1	19.1	29.3	10.8	18.5	11.0	13.6
1974	1,709.1	46.6	27.3	29.8	11.3	18.6	10.9	28.0
1975	1,755.7	58.7	33.4	31.6	11.4	20.2	11.5	38.5
1976	1,814.4	70.6	38.9	32.9	11.6	21.3	11.7	49.3
1977	1,885.0	70.9	37.6	34.4	11.6	22.8	12.1	48.1
1978	1,955.9	68.5	35.0	35.4	11.9	23.5	12.0	45.0
1979	2,024.4	81.2	40.1	37.0	12.1	24.9	12.3	56.3
1980	2,105.6	98.0	46.5	39.7	12.7	27.0	12.8	71.0
1981	2,203.6	85.3	38.7	42.6	12.8	29.8	13.5	55.5
1982	2,288.9	42.8	18.7	45.0	13.0	32.1	14.0	10.7
1983	2,331.7	6.3	2.7	45.6	12.6	33.0	14.1	-26.7
1984	2,338.0	1.2	0.5	44.1	12.7	31.4	13.4	-30.2
1985	2,339.2	19.9	8.5	43.8	13.2	30.6	13.1	-10.7
1986	2,359.1	11.4	4.8	43.7	13.6	30.2	12.8	-18.8
1987	2,370.5	6.5	2.7	42.1	13.3	28.8	12.1	-22.3
1988	2,377.0	31.0	13.0	42.1	13.9	28.2	11.9	2.8
1989	2,408.0	42.2	17.5	43.4	13.9	29.5	12.3	12.7
1990	2,450.2	51.2	20.9	43.4	14.0	29.4	12.0	21.8
1991	2,501.4							

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1971-1991
(in thousands) - Continued

Year	Popula- tion ¹	Total Growth ²	Rate per 1,000	Births ²	Deaths ²	Natural Increase	Rate per 1,000	Net Migration ³
British Columbia								
1971	2,168.0	55.6	25.6	34.9	17.8	17.1	7.9	38.5
1972	2,223.6	56.6	25.5	34.6	18.0	16.5	7.4	40.1
1973	2,280.2	69.6	30.5	34.4	18.1	16.3	7.1	53.3
1974	2,349.8	68.5	29.2	35.5	19.2	16.3	6.9	52.2
1975	2,418.3	38.8	16.0	36.3	19.1	17.2	7.1	21.6
1976	2,457.1	28.4	11.6	35.9	18.9	17.0	6.9	11.4
1977	2,485.5	41.6	16.7	36.0	18.6	17.4	7.0	24.2
1978	2,527.1	45.0	17.8	37.2	19.1	18.2	7.2	26.8
1979	2,572.1	64.3	25.0	38.4	19.2	19.2	7.5	45.1
1980	2,636.4	81.3	30.8	40.1	19.4	20.7	7.9	60.6
1981	2,717.7	56.4	20.8	41.5	19.9	21.6	8.0	34.8
1982	2,774.1	28.6	10.3	42.7	20.7	22.0	7.9	6.6
1983	2,802.7	31.1	11.1	42.9	19.8	23.1	8.2	8.0
1984	2,833.8	29.2	10.3	43.9	20.7	23.2	8.2	6.0
1985	2,863.0	20.4	7.1	43.1	21.3	21.8	7.6	-1.4
1986	2,883.4	25.3	8.8	42.0	21.2	20.8	7.2	4.5
1987	2,908.7	50.2	17.3	41.8	21.8	20.0	6.9	30.2
1988	2,958.9	64.6	21.8	42.9	22.5	20.4	6.9	44.2
1989	3,023.5	76.5	25.3	43.8	23.0	20.8	6.9	55.7
1990	3,100.0	85.9	27.7	44.6	23.2	21.4	6.9	64.5
1991	3,185.9							
Yukon								
1971	18.0	1.2	66.7	0.5	0.1	0.4	22.3	0.8
1972	19.2	1.0	52.1	0.5	0.1	0.3	18.1	0.7
1973	20.2	0.3	14.9	0.4	0.1	0.3	15.3	-0.0
1974	20.5	0.6	29.3	0.5	0.1	0.4	18.6	0.2
1975	21.1	0.7	33.2	0.4	0.1	0.3	14.0	0.4
1976	21.8	0.1	4.6	0.4	0.1	0.3	14.9	-0.2
1977	21.9	0.5	22.8	0.4	0.1	0.3	15.0	0.2
1978	22.4	0.2	8.9	0.4	0.1	0.4	16.0	-0.2
1979	22.6	0.0	0.0	0.4	0.1	0.3	12.1	-0.3
1980	22.6	0.1	4.4	0.5	0.1	0.3	15.4	-0.2
1981	22.7	0.9	39.6	0.5	0.1	0.4	17.4	0.5
1982	23.6	-0.6	-25.4	0.5	0.1	0.4	17.2	-1.0
1983	23.0	-0.1	-4.3	0.5	0.1	0.4	18.6	-0.5
1984	22.9	0.5	21.8	0.5	0.1	0.4	17.9	0.1
1985	23.4	0.1	4.3	0.5	0.1	0.3	14.6	-0.2
1986	23.5	0.7	29.8	0.5	0.1	0.4	15.7	0.3
1987	24.2	0.5	20.7	0.5	0.1	0.4	15.3	0.1
1988	24.7	0.7	28.3	0.5	0.1	0.4	16.2	0.3
1989	25.4	0.6	23.6	0.5	0.1	0.4	15.7	0.2
1990	26.0	0.5	19.2	0.5	0.1	0.4	15.4	0.1
1991	26.5							

See notes at the end of this table.

Table A1. Demographic Accounts of the Provinces and Territories, 1971-1991
(in thousands) - Concluded

Year	Popula- tion ¹	Total Growth ²	Rate per 1,000	Births ²	Deaths ²	Natural Increase	Rate per 1,000	Net Migration ³
Northwest Territories								
1971	34.0	2.5	73.5	1.3	0.2	1.1	31.1	1.4
1972	36.5	2.2	60.3	1.2	0.3	1.0	26.5	1.2
1973	38.7	0.7	18.1	1.2	0.2	1.0	24.7	-0.3
1974	39.4	1.2	30.5	1.0	0.2	0.8	21.2	0.4
1975	40.6	1.7	41.9	1.2	0.2	1.0	23.6	0.7
1976	42.3	0.4	9.5	1.2	0.2	1.0	23.0	-0.6
1977	42.7	0.4	9.4	1.2	0.2	1.0	23.2	-0.6
1978	43.1	0.5	11.6	1.2	0.2	1.0	23.2	-0.5
1979	43.6	0.7	16.1	1.3	0.2	1.1	24.7	-0.4
1980	44.3	0.7	15.8	1.3	0.2	1.1	24.0	-0.4
1981	45.0	1.6	35.6	1.3	0.2	1.1	24.6	0.5
1982	46.6	1.9	40.8	1.4	0.2	1.1	24.2	0.8
1983	48.5	1.3	26.8	1.5	0.2	1.3	25.8	0.0
1984	49.8	1.5	30.1	1.4	0.2	1.2	24.2	0.3
1985	51.3	0.8	15.6	1.4	0.2	1.2	23.8	-0.4
1986	52.1	-0.5	-9.6	1.5	0.2	1.3	24.4	-1.8
1987	51.6	0.2	3.9	1.5	0.2	1.3	25.7	-1.1
1988	51.8	0.6	11.6	1.6	0.2	1.4	27.0	-0.8
1989	52.4	0.8	15.3	1.5	0.2	1.3	24.8	-0.5
1990	53.2	0.8	15.0	1.5	0.2	1.3	24.4	-0.5
1991	54.0							

¹ As of January 1. Data are taken from final intercensal estimates for 1971-86. Data for 1987, 1988, 1989 are taken from final postcensal estimates. The data for 1990 are updated and the 1991 data is preliminary, dated April 24, 1991.

² From January 1 to December 31. 1971 to 1989: Final data. 1990: Preliminary updated data dated March, 1991.

³ Difference between total growth and natural increase.

Note: Calculations are based on unrounded data.

Source: Statistics Canada.

Table A2. Age-specific First Marriage Rates (per 1,000) for Male Cohorts, Canada, 1942-1972

Age	Year of Birth																																
	Year of 17th Birthday																																
	1972	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947	1946	1945	1944	1943	1942		
Males																																	
17	0.4	0.5	0.6	0.6	0.6	0.6	0.7	0.9	1.2	1.7	1.6	2.0	2.5	3.3	3.9	4.5	4.9	4.7	4.3	4.3	4.0	3.8	3.9	3.9	3.9	4.0	3.8	4.0	4.4	4.9	4.9	4.9	
18		2.7	2.8	2.9	3.4	3.7	4.0	4.5	6.1	6.8	8.6	9.6	11.1	13.0	15.0	18.3	19.7	20.6	21.9	18.9	17.9	17.2	16.9	17.8	18.1	18.3	15.9	15.3	17.1	18.0	19.2		
19			7.7	8.3	8.6	9.6	10.2	11.3	13.4	16.7	19.9	22.7	25.3	28.7	32.4	36.6	41.3	44.7	48.0	48.7	44.2	41.7	39.8	41.0	44.2	44.6	39.2	37.7	38.1	43.1	42.6		
20				17.2	17.7	18.1	21.1	22.1	24.8	29.4	35.4	40.7	44.9	49.7	53.4	58.8	62.0	71.3	77.6	81.7	83.6	77.3	73.6	73.4	77.4	82.8	73.3	70.6	71.7	73.7	74.5		
21					30.5	30.6	31.8	35.3	38.2	42.4	48.3	55.2	61.8	68.1	71.6	75.0	79.4	82.9	96.9	100.2	109.5	116.5	116.5	114.0	120.1	127.6	118.1	112.9	114.0	116.8	111.3		
22						43.3	44.6	45.7	50.6	53.1	57.8	62.4	70.0	74.3	80.5	82.4	83.2	86.3	92.3	102.6	110.4	118.5	127.1	125.3	130.3	140.0	128.6	128.2	130.6	130.6	122.6		
23							55.0	56.8	58.9	61.5	64.4	67.4	68.6	74.6	77.7	81.3	80.4	81.6	84.7	87.5	96.4	101.0	110.2	118.3	116.1	130.7	121.1	119.6	128.1	131.3	121.9		
24								63.8	64.0	63.8	65.5	67.0	68.2	69.6	70.4	72.1	73.5	72.6	72.5	73.7	75.2	82.4	87.3	92.5	97.5	97.3	98.3	98.5	106.0	111.0	108.3		
25									67.3	64.6	62.7	62.0	62.8	63.9	61.2	62.4	63.8	63.2	62.1	61.4	62.5	61.9	67.0	68.9	72.7	75.3	78.1	75.2	80.8	84.8	85.5		
26										61.7	59.2	53.9	53.8	55.5	52.8	52.7	53.5	52.2	50.9	50.2	48.8	49.8	48.7	51.4	52.6	55.5	58.5	56.2	59.7	62.0	64.3		
27											52.9	50.7	48.1	45.9	46.4	45.0	42.7	42.5	42.4	41.5	40.4	39.0	38.9	38.2	39.8	40.7	42.4	42.3	42.1	44.9	46.7		
28												45.2	42.2	39.2	36.8	37.8	36.2	35.2	34.4	33.6	32.9	31.8	31.5	31.3	29.7	30.7	31.1	31.3	31.2	33.5	34.0		
29													37.3	35.4	32.9	30.6	31.4	29.8	29.1	27.5	27.4	26.4	25.0	23.7	23.6	23.2	24.1	23.3	23.9	25.9	24.7		
30														30.5	28.5	26.6	25.1	24.4	23.6	23.0	21.8	21.0	20.6	19.5	18.9	18.3	18.3	18.5	18.6	18.9	19.5		
31															24.0	22.5	21.3	18.6	19.2	18.7	18.0	16.8	16.1	15.7	14.7	14.3	14.6	14.2	14.1	14.5	14.6		
32																19.5	18.6	16.7	15.3	15.5	15.2	13.4	13.3	12.4	12.0	11.3	11.3	11.2	11.3	11.3	11.4		
33																	15.2	14.7	13.6	12.2	12.1	11.6	11.2	10.3	9.8	9.4	9.3	8.7	9.2	8.7	9.3		
34																		12.7	12.3	10.7	9.7	9.7	9.0	8.8	8.0	7.9	7.6	7.3	7.1	7.2	7.4		
35																			10.3	10.1	9.0	7.8	7.8	7.6	6.9	6.5	6.3	6.3	6.1	6.0	6.0		
36																				8.4	7.7	7.4	6.7	6.3	5.9	5.6	5.7	5.2	4.6	5.0	4.8		
37																					7.0	6.4	5.6	5.1	4.7	4.5	4.6	4.0	4.3	4.2	4.3		
38																						5.4	5.3	4.8	4.0	3.5	3.7	3.5	3.4	3.4	3.4		
39																							4.5	4.5	3.8	3.8	3.4	3.3	2.9	2.8	3.1		
40																								3.7	3.5	3.4	3.1	2.5	2.8	2.4	2.3		
41																									3.1	2.9	2.8	2.6	2.1	2.2	2.1		
42																										2.5	2.3	2.4	2.1	2.0	1.8		
43																											2.0	2.2	2.0	1.9	1.7		
44																												2.0	2.0	1.9	1.6		
45																														1.6	1.6		

Source: Statistics Canada, unpublished data.

Table A3. Age-specific First Marriage Rates (per 1,000) for Female Cohorts, Canada, 1942-1974

Age	Year of Birth																																	
	1974	1973	1972	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947	1946	1945	1944	1943	1942	
	Year of 15th Birthday																																	
Females																																		
15	0.2	0.1	0.2	0.2	0.3	0.3	0.5	0.5	0.5	0.5	0.5	1.1	1.8	2.2	2.5	2.8	3.5	3.5	3.4	3.5	3.5	3.2	3.3	3.4	3.4	4.1	4.2	5.4	5.0	5.4	5.8	6.2	5.9	
16		1.9	2.0	2.2	2.5	3.1	3.6	3.9	4.6	5.0	5.9	6.6	7.8	9.2	11.4	13.9	15.8	17.4	18.6	17.6	17.7	16.7	15.7	16.5	16.8	17.6	19.5	21.6	21.6	22.4	25.7	26.7	26.5	
17			4.7	4.9	5.6	6.2	7.6	8.5	9.6	11.1	12.8	15.3	17.2	19.7	23.7	27.4	33.0	36.1	39.9	41.8	40.1	40.6	38.6	39.7	40.8	41.0	44.8	48.7	45.4	48.5	53.5	56.8	59.2	
18				16.9	17.1	18.6	22.3	24.7	25.8	29.8	34.6	39.1	45.4	49.8	54.6	61.6	68.1	77.6	82.3	87.0	92.3	85.2	82.7	82.0	81.7	84.5	88.0	93.6	87.2	86.2	94.3	101.6	104.6	
19					30.6	32.7	33.8	39.3	41.1	44.4	49.8	56.8	64.2	70.5	74.5	79.6	85.3	91.3	101.4	106.5	115.8	119.7	113.2	108.7	108.6	110.3	116.5	123.1	109.4	106.7	112.7	122.0	120.2	
20						47.7	48.2	50.4	53.6	58.1	61.6	67.1	76.0	81.4	87.4	90.0	92.4	96.2	97.2	108.7	116.2	123.3	130.3	126.8	121.5	126.1	132.8	141.3	124.7	118.5	124.9	125.7	124.0	
21							61.0	62.9	63.5	65.6	69.7	74.3	75.6	81.8	84.7	89.3	89.5	90.8	90.4	91.1	102.5	109.0	117.5	125.7	128.8	126.7	126.7	134.6	143.0	132.1	122.9	124.5	127.3	119.5
22								69.4	70.3	68.8	72.1	73.1	74.1	74.3	76.7	80.0	79.0	79.4	76.5	77.5	79.1	86.2	89.9	95.4	100.7	101.3	105.8	115.9	105.1	100.7	103.0	104.4	95.1	
23									71.8	71.4	69.7	67.6	69.5	68.4	67.1	68.4	67.5	66.5	64.8	62.0	63.2	61.6	66.5	68.2	71.0	74.0	73.4	83.0	76.3	74.1	78.2	78.0	73.6	
24										70.6	66.8	62.9	60.3	59.6	58.2	56.2	55.7	53.0	52.9	49.9	48.1	47.7	46.8	50.4	50.6	51.0	51.8	49.9	53.4	50.6	53.6	55.9	54.2	
25											61.4	58.4	53.9	49.9	49.8	47.4	44.5	43.3	42.2	40.8	38.4	37.0	36.5	35.7	36.9	36.5	36.3	36.5	38.2	37.7	38.1	39.2	39.0	
26												50.0	46.7	41.3	39.7	39.9	37.4	35.4	33.7	31.6	30.2	29.3	27.8	28.2	27.2	27.2	26.1	25.7	27.7	25.7	27.9	28.2	28.1	
27													38.6	37.2	33.5	30.7	30.2	29.1	27.0	25.9	24.5	24.3	22.2	21.6	21.0	20.3	20.0	18.8	20.1	18.9	19.9	21.0	21.0	
28														31.7	28.9	26.3	22.9	23.4	22.8	20.8	20.8	19.7	18.6	18.0	16.9	16.3	15.6	14.9	15.1	15.7	14.8	15.5	14.9	15.3
29															24.7	23.2	20.5	17.8	18.5	17.3	16.3	15.7	14.8	13.9	12.9	12.4	12.0	11.1	11.9	11.7	11.4	11.6	12.6	
30																19.8	17.5	15.9	14.3	14.5	14.0	12.5	12.0	11.4	10.8	9.9	9.4	9.3	9.4	9.5	8.9	9.2	9.4	
31																	14.7	13.7	11.9	10.7	10.8	10.6	9.7	9.0	8.6	7.8	7.5	6.9	7.4	7.5	7.3	7.3	7.8	
32																		11.7	10.6	9.4	8.1	8.4	8.0	7.6	7.2	6.5	6.2	5.9	6.1	5.9	5.9	6.2	6.2	
33																			9.1	8.4	7.5	6.7	6.8	6.5	5.9	5.5	5.5	5.0	4.9	4.7	4.7	5.2	4.8	
34																				7.2	5.4	5.9	5.6	5.4	5.2	4.6	4.4	4.1	4.0	4.0	4.1	4.1	3.9	
35																					5.9	5.6	5.2	4.3	4.2	4.0	3.6	3.3	3.6	3.3	3.4	3.3	3.7	
36																						4.7	4.6	3.9	3.5	3.3	2.9	3.0	3.1	2.5	2.7	2.7	2.6	
37																							3.8	3.6	3.2	2.6	2.5	2.2	2.4	2.2	2.3	2.0	2.3	
38																								3.2	2.8	2.5	2.3	2.3	2.3	2.3	2.0	2.1	2.0	2.2
39																									2.6	2.2	2.1	1.9	2.0	1.8	1.7	1.4	1.6	
40																										2.1	2.0	1.7	1.7	1.5	1.3	1.3	1.3	1.5
41																											1.6	1.6	1.3	1.3	1.3	1.1	1.2	1.1
42																												1.4	1.3	1.3	1.3	1.1	1.2	1.1
43																													1.3	1.3	1.2	1.3	1.1	0.9
44																														1.0	0.9	0.9	1.0	
45																																		0.9

Source: Statistics Canada, unpublished data.

**Table A4. Canadian Population as of January 1, 1989 and 1990 by Age and Sex
(in thousands)**

Age	1989		1990	
	Males	Females	Males	Females
0	191.5	182.7	194.9	186.0
1	189.2	180.8	191.7	183.0
2	189.3	180.8	190.3	181.8
3	188.4	178.8	190.4	181.9
4	188.1	178.4	189.7	180.0
5	187.5	178.8	189.3	179.6
6	187.6	178.7	188.8	179.9
7	188.0	179.2	188.9	179.8
8	189.2	180.0	189.3	180.4
9	187.8	178.2	190.5	181.1
10	184.4	175.0	189.1	179.3
11	184.1	175.0	185.7	176.2
12	185.6	176.4	185.3	176.1
13	186.0	176.6	186.8	177.5
14	184.1	175.2	187.2	177.7
15	182.5	173.8	185.2	176.3
16	187.6	177.5	183.6	174.8
17	195.5	185.2	188.6	178.6
18	202.2	192.0	196.5	186.4
19	199.8	189.2	203.3	193.4
20	196.5	187.7	201.0	190.9
21	197.7	191.3	197.9	189.5
22	205.4	200.4	199.1	193.0
23	218.4	214.9	206.7	202.1
24	230.8	228.4	219.9	216.8
25	236.0	235.1	232.4	230.5
26	237.1	238.0	237.8	237.2
27	238.0	239.4	238.9	240.1
28	240.3	241.5	239.9	241.5
29	237.3	239.6	242.1	243.7
30	235.1	238.1	239.1	241.6
31	234.5	237.8	236.9	240.2
32	231.0	234.3	236.2	239.8
33	227.4	230.7	232.5	236.1
34	224.7	229.0	228.8	232.4
35	217.7	222.5	226.0	230.5
36	211.2	214.8	219.0	223.9
37	206.8	209.0	212.2	216.0
38	204.4	205.9	207.7	210.1
39	201.7	203.3	205.3	206.9
40	201.3	202.9	202.4	204.2
41	203.3	203.9	201.9	203.7
42	192.5	192.5	203.8	204.5
43	171.3	170.3	192.8	192.9
44	164.6	163.1	171.5	170.6
45	161.2	160.3	164.7	163.4
46	153.8	153.1	161.2	160.5

Table A4. Canadian Population as of January 1, 1989 and 1990 by Age and Sex
(in thousands) - Concluded

Age	1989		1990	
	Males	Females	Males	Females
47	144.8	144.2	153.8	153.2
48	138.5	138.7	144.7	144.3
49	133.0	132.8	138.4	138.7
50	129.2	128.6	132.8	132.9
51	125.0	124.9	128.9	128.6
52	123.5	124.0	124.6	124.8
53	122.5	123.4	123.0	123.9
54	119.6	120.5	121.9	123.3
55	120.3	120.9	118.9	120.4
56	122.6	123.3	119.5	120.7
57	122.0	123.4	121.8	123.1
58	120.8	123.7	121.0	123.1
59	117.3	121.5	119.7	123.4
60	113.7	119.5	116.1	121.1
61	112.1	119.6	112.4	119.1
62	109.3	119.2	110.7	119.0
63	106.7	119.5	107.7	118.6
64	103.3	117.7	105.0	118.7
65	99.5	115.6	101.4	116.8
66	96.9	114.3	97.4	114.5
67	94.3	113.1	94.7	113.1
68	89.0	108.4	92.0	111.9
69	80.4	99.6	86.7	107.1
70	71.0	89.5	78.0	98.2
71	67.9	86.7	68.5	88.0
72	65.5	85.2	65.2	85.0
73	64.1	84.1	62.6	83.4
74	61.5	82.3	61.1	82.1
75	56.5	77.2	58.5	80.2
76	51.1	71.4	53.5	75.1
77	45.7	66.1	48.1	69.1
78	41.5	61.6	42.7	63.7
79	37.1	56.4	38.6	59.1
80	32.7	51.9	34.3	53.9
81	28.8	47.4	30.0	49.4
82	24.9	43.0	26.2	44.8
83	21.6	38.9	22.4	40.3
84	18.6	34.6	19.2	36.2
85	16.0	30.5	16.5	32.0
86	13.4	26.3	14.0	27.9
87	10.9	22.8	11.6	23.8
88	8.7	19.8	9.2	20.3
89	6.8	16.2	7.3	17.5
90+	21.1	60.7	21.4	63.1
Total	12,868.4	13,228.9	13,034.7	13,405.6

Source: Statistics Canada, Demography Division, Estimates Section.

1989: Final postcensal estimates.

1990: Postcensal estimates, as of 26 September, 1991.

Table A5. Nuptiality

	Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Canada
Number of Marriages	1978	3,841	939	6,560	5,310	45,936	67,491	8,232	7,139	18,277	21,388	194	216	185,523
	1979	3,737	893	6,920	5,355	46,341	67,980	7,769	7,272	18,999	22,087	181	277	187,811
	1980	3,783	939	6,791	5,321	44,848	68,840	7,869	7,561	20,818	23,830	200	269	191,069
	1981	3,758	849	6,632	5,108	41,005	70,281	8,123	7,329	21,781	24,699	235	282	190,082
	1982	3,764	855	6,486	4,923	38,354	71,595	8,264	7,491	23,312	23,831	225	260	188,360
	1983	3,778	937	6,505	5,260	36,144	70,893	8,261	7,504	21,172	23,692	243	286	184,675
	1984	3,567	1,057	6,798	5,294	37,433	71,922	8,393	7,213	20,052	23,397	212	259	185,597
	1985	3,220	956	6,807	5,312	37,026	72,891	8,296	7,132	19,750	22,292	185	229	184,096
	1986	3,421	970	6,445	4,962	33,083	70,839	7,816	6,820	18,896	21,826	183	257	175,518
	1987	3,481	924	6,697	4,924	32,616	76,201	7,994	6,853	18,640	23,395	189	237	182,151
	1988	3,686	965	6,894	5,292	33,519	78,533	7,908	6,767	19,272	24,461	209	222	187,728
	1989	3,905	1,019	6,828	5,254	33,325	80,377	7,800	6,637	19,888	25,170	214	223	190,640

Source: Statistics Canada, Vital Statistics, *Marriage and Divorce*, annual, and Canadian Information Center on Health, *Marriages*, annual from 1987 to 1989.

Table A6. Divorce

	Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Canada
Number of Divorces	1978	427	135	1,960	1,153	14,865	20,534	2,187	1,428	6,059	8,265	65	77	57,155
	1979	483	144	2,275	1,223	14,379	21,793	2,152	1,528	6,531	8,826	62	78	59,474
	1980	555	163	2,314	1,326	13,899	22,442	2,282	1,836	7,580	9,464	82	76	62,019
	1981	569	187	2,285	1,334	19,193	21,680	2,399	1,932	8,418	9,533	75	66	67,671
	1982	625	206	2,281	1,663	18,579	23,644	2,392	1,815	8,882	10,165	117	67	70,436
	1983	711	215	2,340	1,942	17,365	23,073	2,642	2,000	8,758	9,348	88	85	68,567
	1984	590	195	2,264	1,427	16,845	21,636	2,611	1,988	8,454	8,988	100	74	65,172
	1985	561	213	2,337	1,360	15,814	20,854	2,314	1,927	8,102	8,330	96	72	61,980
	1986	610	191	2,550	1,700	18,399	28,653	2,917	2,395	9,386	11,176	89	94	78,160
	1987	1,002	246	2,640	1,952	19,315	38,223	3,771	2,751	9,170	11,697	113	105	90,985
	1988	884	260	2,478	1,665	19,825	29,873	2,998	2,463	8,644	10,591	81	110	79,872
	1989	981	243	2,524	1,647	19,790	31,202	2,847	2,451	8,227	10,630	82	92	80,716
Average Duration of Marriage among People who became Divorced	1978	12.5	12.5	12.3	12.6	13.3	12.4	12.0	12.5	10.7	11.8	11.2	11.0	12.4
	1979	12.7	12.0	12.1	12.6	12.9	12.3	11.9	12.4	10.4	11.8	10.8	10.2	12.1
	1980	12.5	13.1	12.0	12.4	12.8	12.3	11.6	12.2	10.3	11.6	11.6	12.0	12.0
	1981	12.4	13.3	12.0	12.8	12.9	12.4	12.0	11.8	10.3	11.6	11.5	9.9	12.1
	1982	12.8	12.8	11.8	12.7	12.7	12.3	12.0	11.9	10.2	11.8	11.4	11.5	12.0
	1983	12.0	13.3	12.0	12.6	12.5	12.5	11.8	11.6	10.3	11.8	11.7	10.7	12.0
	1984	12.6	13.8	12.4	13.5	12.8	12.6	12.1	12.0	10.5	12.5	11.9	10.3	12.4
	1985	12.7	13.6	12.4	13.2	13.1	12.8	11.8	12.2	10.7	12.4	11.3	10.8	12.5
	1986	13.4	14.0	12.4	13.2	13.3	12.7	12.2	12.1	10.5	12.3	10.6	11.6	12.5
	1987	12.7	12.9	12.4	13.2	13.5	12.4	11.9	11.7	10.7	12.1	11.1	10.7	12.4
	1988	13.1	12.8	12.2	13.5	13.3	12.5	11.9	12.2	10.9	12.1	12.2	10.6	12.5
	1989	13.1	13.0	12.2	13.0	13.4	12.3	11.8	12.1	11.1	12.1	11.4	10.9	12.4

Source: Data calculated at the Demography Division.

Table A7. Fertility

	Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Canada
Number of Live Births	1978	10,480	1,985	12,548	10,790	94,860	120,964	16,397	16,550	35,396	37,231	447	1,204	358,852
	1979	10,170	1,934	12,406	10,848	98,646	121,655	16,242	16,944	37,003	38,432	501	1,283	366,064
	1980	10,332	1,958	12,369	10,636	97,421	123,316	15,989	17,057	39,749	40,104	476	1,302	370,709
	1981	10,130	1,897	12,079	10,503	95,322	122,183	16,073	17,209	42,638	41,474	536	1,302	371,346
	1982	9,173	1,924	12,325	10,489	90,800	124,856	16,123	17,722	45,036	42,747	525	1,362	373,082
	1983	8,929	1,907	12,401	10,518	88,154	126,826	16,602	17,847	45,555	42,919	540	1,491	373,689
	1984	8,560	1,954	12,378	10,360	87,839	131,296	16,651	18,014	44,105	43,911	519	1,444	377,031
	1985	8,500	2,008	12,450	10,121	86,340	132,208	17,097	18,162	43,813	43,127	464	1,437	375,727
	1986	8,100	1,928	12,358	9,788	84,634	133,882	17,009	17,513	43,744	41,967	483	1,507	372,912
	1987	7,769	1,955	12,110	9,588	83,791	134,617	16,953	17,034	42,110	41,814	478	1,523	369,742
Fertility Rate by Age Group (p. 1,000)	1988	7,487	1,977	12,182	9,617	86,612	138,066	17,030	16,763	42,055	42,930	521	1,555	376,795
	1989	7,762	1,937	12,533	9,667	92,373	145,338	17,321	16,651	43,351	43,769	480	1,479	392,661
	1988: 15-19	-	29.5	30.0	23.3	16.4	20.1	38.3	43.9	34.4	23.2	43.0	136.5	23.7
	20-24	-	97.2	87.1	89.4	77.3	75.2	98.7	122.4	100.2	85.8	118.6	178.5	83.4
	25-29	-	138.2	114.9	120.6	119.4	124.5	132.8	144.9	134.3	123.8	135.3	152.4	124.9
	30-34	-	79.4	67.5	63.6	64.8	85.5	81.3	77.9	85.7	83.2	97.6	107.4	78.0
	35-39	-	26.3	21.0	17.6	18.7	28.9	25.7	22.7	27.1	29.1	32.1	38.2	25.1
	40-44	-	2.1	2.6	2.9	2.9	3.9	4.3	2.9	4.2	4.2	4.1	15.5	3.6
	1989: 15-19	-	31.4	30.5	30.2	17.6	21.8	42.6	46.2	35.7	24.9	37.2	115.5	24.6
	20-24	-	87.2	86.8	98.4	80.7	76.0	99.8	119.6	100.4	84.9	119.4	175.9	82.5
Fertility Rate by Parity ¹	25-29	-	137.1	119.8	116.2	127.4	129.0	129.5	148.4	136.6	123.6	113.9	161.2	126.3
	30-34	-	81.3	72.7	59.9	72.0	91.4	86.7	80.8	92.6	85.5	91.4	91.6	81.8
	35-39	-	21.7	21.0	14.1	20.4	31.5	28.6	22.5	29.4	29.9	33.1	37.3	26.3
	40-44	-	5.7	3.3	2.1	2.8	4.6	4.4	3.1	3.8	4.1	3.9	8.0	3.7
	1988: 1	-	24.2	22.9	22.5	23.0	24.0	24.7	24.4	25.5	23.6	30.7	38.1	23.3
	2	-	19.4	18.0	18.1	17.0	19.5	20.3	22.4	22.3	19.5	25.3	29.9	18.8
	3	-	10.4	7.6	7.1	5.6	8.1	10.1	12.7	10.5	8.6	10.3	18.9	7.8
	4	-	6.1	3.1	2.6	2.0	3.1	6.2	8.0	5.7	3.6	4.5	22.0	3.4
	1989: 1	-	26.4	26.2	25.1	27.3	27.6	28.7	27.8	28.1	26.3	30.3	37.4	26.8
	2	-	20.4	20.3	19.5	19.8	22.1	22.3	24.2	25.2	21.6	24.6	31.8	21.2
	3	-	10.9	8.6	8.0	7.2	9.3	11.2	14.3	11.9	9.2	7.8	19.9	9.0
	4	-	6.1	3.5	2.8	2.5	3.8	6.8	9.0	6.3	3.9	6.3	20.0	3.9

Table A7. Fertility -- Concluded

	Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Canada
Total Fertility Rate (women aged 15 to 49) ¹	1978	-	2.1	1.8	1.8	1.7	1.7	1.9	2.2	2.0	1.7	2.0	3.1	1.7
	1979	-	2.0	1.7	1.8	1.7	1.7	1.9	2.3	2.0	1.7	2.1	3.2	1.7
	1980	-	2.0	1.7	1.7	1.7	1.7	1.9	2.2	2.0	1.7	2.0	3.2	1.7
	1981	-	1.9	1.6	1.7	1.6	1.6	1.9	2.1	1.9	1.7	2.1	3.0	1.7
	1982	-	1.9	1.7	1.7	1.5	1.7	1.8	2.2	1.8	1.7	2.0	3.0	1.7
	1983	-	1.8	1.7	1.7	1.5	1.7	1.9	2.1	1.9	1.7	2.2	3.2	1.7
	1984	-	1.9	1.6	1.7	1.5	1.7	1.9	2.1	1.9	1.8	2.2	3.0	1.7
	1985	-	1.9	1.6	1.6	1.5	1.7	1.9	2.1	1.9	1.7	1.9	2.8	1.7
	1986	-	1.9	1.6	1.6	1.4	1.7	1.9	2.1	1.9	1.7	2.0	3.0	1.7
	1987	-	1.9	1.6	1.6	1.4	1.7	1.9	2.0	1.9	1.7	2.0	3.1	1.7
	1988	-	1.9	1.6	1.6	1.5	1.7	1.9	2.1	1.9	1.8	2.2	3.1	1.7
	1989	-	1.8	1.7	1.6	1.6	1.8	2.0	2.1	2.0	1.8	2.0	2.9	1.8

¹ Calculations done at the Demography Division from final population estimates (June 1) and data from Vital Statistics.

Table A8. Mortality

	Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Canada
Number of Deaths	1978	3,115	994	6,877	5,183	43,552	61,116	8,297	7,749	11,944	19,058	89	205	168,179
	1979	3,136	1,022	6,843	5,172	43,311	61,468	8,217	7,369	12,109	19,204	127	205	168,183
	1980	3,345	1,035	7,004	5,297	43,512	62,746	8,436	7,651	12,710	19,371	128	238	171,473
	1981	3,230	992	6,958	5,139	42,684	62,838	8,648	7,523	12,823	19,857	141	196	171,029
	1982	3,385	980	6,941	5,197	43,497	63,696	8,490	8,202	12,968	20,707	118	232	174,413
	1983	3,498	1,050	7,047	5,206	44,275	64,507	8,521	7,611	12,588	19,827	113	241	174,484
	1984	3,520	1,109	6,913	5,272	44,449	64,703	8,290	7,710	12,730	20,686	108	237	175,727
	1985	3,557	1,110	7,315	5,230	45,707	66,747	8,756	8,031	13,231	21,302	123	214	181,323
	1986	3,540	1,121	7,255	5,458	46,892	67,865	8,911	8,061	13,560	21,213	113	235	184,224
	1987	3,629	1,116	7,112	5,408	47,616	68,119	8,710	7,808	13,316	21,814	108	197	184,953
	1988	3,591	1,112	7,412	5,450	47,771	70,679	9,100	8,100	13,894	22,546	136	220	190,011
Number of Infant Deaths	1989	3,718	1,089	7,516	5,496	48,305	70,907	8,819	7,920	13,854	22,997	95	249	190,965
	1978	128	15	149	127	1,126	1,373	225	236	405	472	5	28	4,289
	1979	109	21	148	124	1,040	1,247	211	194	423	434	8	35	3,994
	1980	110	22	135	116	953	1,175	184	193	500	442	9	29	3,868
	1981	98	25	139	114	807	1,073	191	203	452	424	8	28	3,562
	1982	99	15	106	110	800	1,041	146	186	442	423	11	22	3,401
	1983	95	16	116	112	676	1,013	173	180	383	377	10	31	3,182
	1984	79	16	97	81	645	992	144	169	425	378	7	25	3,058
	1985	92	8	98	97	626	961	170	200	352	349	5	24	2,982
	1986	65	13	104	81	604	969	157	157	393	355	12	28	2,938
	1987	59	13	90	67	594	888	142	155	315	359	5	19	2,706
	1988	70	14	79	69	563	910	132	140	347	362	3	16	2,705
	1989	64	12	73	69	632	985	115	134	325	360	2	24	2,795

Source: Vital Statistics, *Births and Deaths*, Catalogue 84-204 Annual from 1978 to 1986, Canadian Centre for Health Information, *Births*, Annual, *Deaths*, Annual, from 1987 to 1989.

Part II

Overview of the Principal World Migratory Flows Since World War II

Introduction

Immigration is always topical in Canada. This might be because, from a historical demographic viewpoint, almost all of Canada's population has been comprised of relatively recent immigrants. Canadians are also aware that the international community sees Canada as a vast, almost unpopulated country compared with Europe, for example, whose image is one of saturated countries.¹ But their views are disputed and more and more consider the country's potential more limited than it appears, and its ecology fragile. Consequently, they are not avid supporters of rapid growth and do not look very favourably on throwing open the doors to immigration. Debate on this subject is still not entirely open.

At the moment, in this final decade of the century, two main issues are stimulating the continual interest in immigration. The first is the realization that our demographic growth is slow and there is no hope of any great short-term change. This leads certain social intervenors to see immigration as a substitute for natural population increase. Indeed, until recently, economic and demographic growth in Canada have been linked. Even today, many still believe that economic growth depends on population growth. But this belief has been questioned by a recent report from the Economic Council of Canada (see reference later in text). The second is the perception of pressures on our borders from people trying to leave countries where the economic prospects are bleak and political problems numerous: the South-North pressure.

This text is an attempt to bring together the available information about migratory movements in the world today.² While migrations affecting Canada are naturally most interesting to Canadian readers, it has been chosen to draw a broader picture of large population movements in some other parts of the world. This will better show Canada's situation in a conjuncture which will soon involve nearly all countries of the world. Economic interests, social fears, political pressures and strategic concessions combine resulting in various countries adopting policies welcoming immigrants, limiting immigration or refusing entry. These elements inevitably interact in a world where Canada is a major player.

If population movements only sometimes result directly from demography, they always have demographic consequences and eventually these may, in turn, cause other movements. Experience shows that the behaviours of individuals

¹ Livi Bacci, "Migrations nord-sud: une approche comparative des expériences nord-américaines et européennes". International conference on migrations - Rome, 13-15 March 1991.

² There is a great deal of literature on migrations. So as not to continually distract the reader, only references on the most important aspects of our description have been given. A summary bibliography can be found at the end of the text.

and the societies they form are largely unpredictable and evolve with the effects of sometimes rapid changes in economic, technological and political circumstances.³

In general, it is self-evident that migration has had favourable effects on progress in the long term. Witness, among humankind as a whole, the cultural richness of great societies, versus the impoverishment of population segments which isolate themselves to remain pure. Unfortunately, the benefits of immigration only manifest themselves after long periods of time. Keynes, famous for ironic statements about the long-term, knew better than others, however, that societies outlive the individuals whose experiences are their heritage. Another of his quotes less often remembered is: “Great events in history often result from slow demographic changes scarcely perceived when they occur.” These demographic changes destabilize some situations, create new balances and in the process, disturb those who are involved. In this brief overview, the author will bring together the most important information gathered by various organizations to describe events occurring since approximately World War II and to evoke the important consequences from the perspective of the end of the twentieth century. The author does not advocate any theory; his purpose here is to deal with facts, some of which are historical, in the realm of migratory movements as interpreted by the most authoritative analysts.

Definitions

To begin, a definition of the international migrant is in order. This may seem easy at first glance because of the tendency to draw a very simplistic picture of this extremely diverse group of persons who move to live in a country or who leave it for another. It becomes confusing when we try to be more precise. Thus, to differentiate the migrant from the traveller, the tourist, etc., this border-crosser must be ascribed some characteristics. The United Nations has recommended for international comparison that a permanent immigrant be defined as a non-resident (national or foreigner) who intends to spend more than one year in a country other than his or her own and, conversely, an emigrant as a person who intends to live out of his or her own country for at least a year. While this definition, with a strong accounting flavour, appears relatively straightforward, it is nonetheless difficult to apply. Moreover, as it provides no information about the social characteristics, no indication of the complexity of the problems of migration comes into light.

In developed countries, relatively good records are kept of persons entering the country, but few countries know how many persons leave. In developing countries, even the statistics on entries are generally poor.

³ Reimers in “Recent Immigration Policy”, p. 35, contends the following: *Attorney General Robert Kennedy, when asked about the prospect of Asian immigration under the 1965 amendments, responded that “it would be approximately 5,000, Mr. Chairman, after which immigration from that source would virtually disappear; 5,000 immigrants could come in the first year, but we do not expect that there would be any great influx after that”.*

MIGRATION – A DEMOGRAPHIC PHENOMENON

Is international migration a demographic phenomenon? From a theoretical point of view that would seem obvious! Reducing the question to its simplest level, migrants decrease the population of the country they leave and increase the population of the country they enter. We could add that if the migrant population has a peculiar age structure, it will change the age structure of the two populations – the one it leaves, and the one it enters. That said, when we move from theory to empiricism, and tackle the question in detail, things look different.

The numbers of migrants and the sizes of the populations they leave and join make demographic repercussions complex. Most important is the effect on growth, more so if the natural growth of the country the migrants are entering is low, which is true of all Western countries. For example, if 15,000 persons immigrate to a country of 25,000,000, this represents an increase of 6 per 1,000. For many countries, this is an important part of total growth. On the other hand, when the age structure of the migrant population is similar to that of the receiving country, it has little effect on the population structure. When incoming migrants have the same characteristics as the receiving population – if their birth rate, for example, is very close to that of the host population – their influence will be minimal. Obviously things are different if immigrants have important discrepancies with the host population. This was the case with Turks in West Germany and Algerians in France.

However, observation over a short time does not give an accurate reading of the cumulative effect of migration. A. Sauvy made a very important observation when explaining the difference in numbers of French and English in America. He said, “The reason is that every year a few more ships sailed from English shores. . . .” Similarly, Spain’s decline in the 16th century has been explained by the loss of her young men with the conquistadors in South and Central America.

We must remember that migration seldom occurs for demographic reasons. Few migratory flows have been traced exclusively to demographic pressure, although this has been known. In the majority of cases, the initiating factors were political, social or economic; however, they did have demographic consequences, which often showed up much later.

Knowledge of these movements is most often obtained from estimates by credible observers – individuals or organizations – using indirect methods.⁴

⁴ For example, using census data classified by period of arrival, the number of entrants in a period can be estimated, almost as well as by taking a census, by applying probabilities of survival and using certain strategies to calculate the frequency of redepartures.

TYPES OF IMMIGRANTS

A migrant is always, to some degree, a person who is forced to leave their country, or who is attracted to another. The classifications are often arbitrary, slotting people on the long continuum between the refugee and the recruit.

- (1) Refugees, under the Geneva Convention, are people who leave their country because their life is threatened through their ideas, or religious or political convictions.¹*
- (2) People seeking asylum are only slightly different from refugees. More or less threatened, they often feel that they have dropped below a minimum standard of living and thus seek a country where they can live safely.*
- (3) Permanent residents (in Canada ‘landed immigrants’)* live almost exclusively in the traditional immigration countries. These people have been attracted by possibilities which are greater in the chosen country than in their own. Often these are economic opportunities such as higher wages, higher standard of living, better advancement possibilities, more chance to develop scientific or human potential and so on.

Foreign or temporary workers are also in this group. They are allowed into a country for varying but precise lengths of time, under different conditions in each country. In theory, foreign workers have no wish to uproot. They vaguely consider themselves to be out of their country for a time for economic reasons. Such workers are found mainly in Europe and the Persian Gulf countries, but also in the Americas and Canada.

- (4) In addition, immigrants usually have dependants accompanying them or joining them once they are settled. They will become immigrants through programs for reunification of families.*

This simplified and arguable classification omits sub-categories, some within the large categories and some overlapping them, such as retired people, missionaries and so on. These categories are not mutually exclusive. It is easy to understand that international migration statistics are some of the most difficult to coordinate and interpret.

¹ *Any people who have reason to fear persecution because of their race, religion, nationality, social group or political opinions, are living outside their country of origin and who cannot, or because of this fear do not want to, return to that country.*

Certain well-organized countries, such as Canada, make use of secondary information in administrative records. Also when a census is taken, relatives or neighbours are questioned about persons who have left and not returned.

Such estimates always result in inconsistencies, at times rather great, between the data from the countries of departure and the countries of destination.⁵ Finally, when estimating migratory movements, added to the imprecision in counting legal immigrants, the unknown number of illegal immigrants cannot be ignored.

Historical Background

Certain migratory flows are well-established. Others, ongoing over the course of time, have dwindled and disappeared. In the search for a general theory, it is suggested that “development” is at the origin of migration. It is argued that, development in the first instance limits the economic horizons of societies, because developing societies make more intensive use of the low-yield production techniques that assure economic balance for the former. It is only later, after high-yield techniques have been put in place, that the society can absorb all the human resources at its disposal. It is relevant to recall some historic traits of the regions currently of interest to establish the milestones.

To state that the recent dynamic of migratory movements has been strongly influenced by the technological, economic and political changes set in motion by World War II, followed by the Cold War does not refute any general theory.

During this short period, scientific discoveries and techniques were put into practice while related consequences were scarcely imagined or understood. As well, the deep inroads made by the industrialized world into such regions as Asia, the Caribbean and Africa, particularly through expeditions or establishment of military bases and the logistical support they required, exposed these countries in an unprecedented way to the technology of the industrialized world. In turn, the industrialized world discovered unknown dimensions of what has since been called the Third World. This represented a break with previous times when, in countries under an old demographic regime of slow growth (colonies, protectorates and trading posts), the only people who spent any time there were administrators, merchants and military personnel at small installations. Sustained technical and scientific aid was immediately given to these people to reduce the precariousness of their lives. At the same time, these countries have tried or been asked to integrate into the world economy without sufficient preparation. This integration has had adverse effects on their social structure. It has destabilized their hierarchies and, in some cases, technical

⁵ To give an example cited by Lebon and Falchi, the number of foreign nationals working in Great Britain in 1976 was estimated by the OECD at 775,000 and at 1,665,000 by the EEC. I.M.R. vol. 14, 1980.

THEORIES AND SYSTEMS IN THE FIELD OF INTERNATIONAL MIGRATION

World-wide development has always brought about migration changes in all fields. Analysis of past migration gives us a broad understanding and highlights the difficulty of proposing an overall theory, unless we use an elementary statement such as: “Migration results from comparative advantages between different geographical and socio-economic areas.” Among reasons for changes in movements and places of destination and origin are:

(A) Temporary changes in economic sectors

Even in prehistoric times, humans had to search for subsistence. Over the centuries this became a quest for agricultural land or, more generally, agricultural production. Some peoples are still involved in this kind of search. In the Western World, this search was at its height in the 18th and 19th centuries and the early part of the 20th century when America, Australia, New Zealand, South Africa, Western Siberia and Manchuria were settled. In addition, the search for basic commodities was put in motion by the industrial revolution. Among these commodities were minerals and fuel sources, with coal and iron heading the list, followed by oil and its byproducts. The midlands of England, the Ruhr valley in Germany, Russia’s Donetz and the midwest of the United States were developed in this way.

(B) Scientific knowledge and increasingly rapid technical progress

More in-depth knowledge has aroused interest in a higher number of basic materials. More complete use of primary materials and an increasing number of manufacturing processes have brought about mechanization, automation, and robotization. Demand has increased for some kinds of workers while others have become redundant.

(C) Increase in capacity and speed of transportation methods

From caravans to ships, railways, pipelines and airplanes, the revolution in transportation, along with scientific progress, has contributed greatly to changing the location of centres for processing primary materials and for industrial production.

progress was oriented toward unforeseen uses. In addition, while aid has considerably increased the rate of demographic growth, it has also spread knowledge of the standard of living in industrialized countries, a standard

(D) Increasingly rapid access to information

From the days of traveller's reports to newspapers, radio, photography and telecopiers to the present, when information is televised worldwide, the time required to learn about opportunities, requirements and technology has decreased from a matter of years to a matter of minutes. Those benefitting are no longer the privileged few, but the public at large.

(E) Geographic location of growth resulting from these changes

From the agricultural plains to the large concentrations of consumers in today's large cities – from mineral deposits and energy sources to points of transfer – interactions between existing and emerging infrastructures have always occurred.

It appears, then, that migratory movements can only be described and explained after the fact, within the frame of time and space that created a particular situation. This explains not only the current situation, but also the transition from the former one and what may possibly happen in the future. We have not arrived at the time when world population movements can be predicted except in a general way, and for the medium-term only.

As time passes and the world changes, the very term "international migration" is losing relevance. New supranational bodies blur the concept of borders. Within geographical groups such as the EEC or North America, the trend seems to be towards a situation similar to before the formation of the nation states, where free movement of people between countries was natural and not subject to administrative formalities. Individuals are increasingly apt to have a different country of birth, citizenship and residence. The importance of migratory flows, their distinctness and duration, declines as migratory flows increase. Thus, the image of the traditional migrant is becoming outdated and the idea of the temporary immigrant is gaining strength. However, permanent migrants have not disappeared. They still exist but are less aware than before of their status. Nor should it be concluded that countries are largely open to all. On the contrary, the increasing polarization between South and North is causing industrialized countries to adopt ambiguous lines of conduct in controlling entries from poor countries, not only in their own interests but also to take into account these countries' needs for development.

some individuals despair of achieving in the foreseeable future, given the slow development in their countries. World War II also spectacularly accelerated progress in physical communications and telecommunications.

The history of recent migrations in various parts of the world has made obvious the dichotomy between industrialized countries with employment opportunities, and developing countries, with little work.

The combination of these basic elements explains why, in addition to the traditional migration flows – which, as well as being influenced by the match between countries looking for workers and countries with a surplus, were coloured by ethnocultural, linguistic and other affinities – there were more unusual movements such as South Asians to Northern Europe or the Mediterranean.⁶

Overseas Immigration Countries

It is widely believed that demographic pressure in Europe brought about the great flood to the “new world”. In the fifteenth and sixteenth centuries, the new territories were discovered and opened to European economies initially searching for gold and spices. These new countries are essentially the Americas, Australia, New Zealand and South Africa. Siberia and the steppes of Asia were not new in the same sense, but they played a similar role for Central Europe. The demographic pressure in Europe arose from a demographic transition. Technical progress had two simultaneous consequences. On the one hand, it reduced the agricultural population, causing a rural exodus and the growth of cities. However, industrialization proved unable to absorb the excess population. On the other hand, this progress lowered the mortality rate while the birth rate remained high. The resulting increased population had to have places to live; the great navigators of the previous centuries had discovered such places. Divided into several waves, European emigration up to World War II has been estimated at some forty million persons. Most settled in and built North America, while the Mediterranean peninsulas provided the basis of the modern population of South America. The Dutch developed a more modest colony in South Africa; the English then took over. Australia and New Zealand attracted British colonists to their distant shores.

This period of colonization succeeded by population movements caused by the world conflict defined what an immigrant is for many Canadians. Thus, the term immigrant evokes the idea of individuals (with or without family) who chose to leave their citizenship behind to come to another country to integrate and assimilate into its population. This image seems to arise from the millions of Europeans who, during the nineteenth and first half of the twentieth century, populated and built along with their descendants, “new countries” such as Canada.

This concept of the immigrant comes from those who have settled in one of these countries, for the most part, wanting to take possession of a piece of land, to make “a place of their own.” It is not surprising that, at the time

⁶ From 1985 to 1988, 19,000 people entered Sweden annually from the Third World.

Prairies were being settled, there was a “Homestead Act” and that the Australian counterparts of Canada’s “landed immigrants” were called “settlers”. Moreover, these immigrants, for the most part, had to forego links with their country of origin because distance and oceans presented formidable barriers; this contributed greatly to newcomers putting down roots.

As the decades and centuries passed, little remains of the original attractions the new world had to offer in the eighteenth and nineteenth centuries. However Canada, the United States, Australia, New Zealand and South Africa, where the Anglo-Saxon culture has been implanted, have both grown and maintained their attraction. They continue to project the image of a high standard of living, impressive potential, a reassuring economy and low density population, even if this is somewhat illusory. They still appear to be countries needing to be populated, a sentiment shared both by foreigners and most of the citizens.

Is this because the cultural identity of the country is still not well-established as its composition continually shifts? Is it because no historical event of sufficient importance has taken place to forge an exclusive, “*sui generis*”, national identity? Is it because of the feeling of abundance? Whatever the reason, these countries operate in a spirit of openness to immigrants.⁷

This ideology has remained dominant up to the present despite strong opposition, many objections and solid arguments. But overall, these countries are seen as, and in fact are, lands that take in immigrants.

Europe

The image that Europe presents is completely different. Given the size of its territory and of its population, we could compare the migration between its countries to internal migration in North America. Continuing the comparison, we would see some external migration, that is, movement of non-European populations into European populations and vice versa, as equivalent to North America’s international migration. Up to now, these similarities do not stand up to analysis. Moreover, differences in economic levels, political regimes, linguistic realities, judicial and other systems in the sovereign countries, have meant that Europe is still not a set of united nations. Rather, it seems because of its geography and its history to be a group of countries with territorial continuity where relations have historically always been intense and where common cultural heritages have remained. But diversity and autonomy have prevailed to this day, to the point that, despite the considerable efforts towards unification in the Treaty of Rome, Europe remains compartmentalized. Perhaps more than in other places, among European countries, the game of musical chairs has been played. With the different levels of development, countries take turns chasing and attracting dissatisfied people, who find it advantageous to occupy a place others have left.

⁷ Livi Bacci, op. cit.

SOUTH-NORTH

Explaining migratory movements with theories like the “attraction-repulsion” theory is inadequate. This classic explanation is certainly valid as long as the direction of the movements is always the same – from poor countries to rich countries – whether because of pressure or recruitment. But, it does not explain why movements remain selective, why it is not all poor countries which are interested in migration to rich areas or why all individuals in poor countries do not emigrate to rich countries. Individuals consider many other factors when making choices, even if they are not clearly aware of them. The complexity of the decision-making process also explains why a flow begun is difficult to stop through legislation and why others follow even after the original impetus has disappeared. Migration is not simply economically based, although the cost-benefit law of economics may influence the decision to migrate.

In fact, there must first be a feeling of unfulfilled needs. Individuals or societies must have undergone development to become interested in living in a more affluent society. In a sense, it is as though a dialogue must be established between the migrants and the society to which they may move. Concretely speaking, it follows that in undeveloped countries, the middle classes are likely emigrants. The upper levels of society have comforts and sufficient advantages to eclipse those that might tempt them to emigrate. The lower classes’ lack of information and financial resources, and more especially of training and skills, keeps them from migrating. This phenomenon, the effects of which can be seen in migrants at ports of entry, appears when a sudden collective exodus occurs. This happened recently between Albania and Italy. After only a few days, some Albanians were returning spontaneously to their country, obviously unable to cope with the situation facing them.

Nevertheless, indispensable development is also inexorable because of increasing communication between industrialized and developing countries. The lower classes will receive more and more information about the rest of the world, especially from other migrants. The first people

From a historical perspective, Europe has almost maintained the same position in the great migratory movements. Historically, Europe has always had people arriving from the East.⁸ However, especially from the eighteenth

⁸ At the end of the 19th century, Germany accepted immigrants from Prussia and Poland, Switzerland accepted them from Italy; and France accepted, in waves, people from Poland, Italy and Spain.

to emigrate tell people in their home country about the benefits of migration; they are links with their country and initiate networks and migration flows.¹

However, these processes have existed long enough for South-North pressure to be recognized on a world-wide scale. The pressure has become more acute and the Western World is increasingly sensitive to it. Reducing this pressure between industrialized and developing countries requires ending disparities between standards of living.

From the outset, it is necessary to avoid the possibility of the industrialized countries' "accommodating" significant sections of the population of developing countries in the short term. The industrialized countries thus have two possibilities: they can design more and more difficult hurdles for immigrants. This formula has been attempted in Europe since 1973 and has not been effective. The industrialized world cannot escape its obligation to shelter those searching asylum or refuge, nor can it refuse to allow reunification of families. Uncompromising policies also result in illegal immigration, causing all kinds of problems.

Their second choice is to improve the standard of living in developing countries that have shown an interest in immigration. At present, making living standards uniform would require more progress in the developing countries than can be achieved in the near future. However, attempts to create economic groups including Southern countries are under way. If complementary countries become players in the economic game, we might expect that South-North pressure would be reduced, even though immigration to industrialized countries would first accelerate. In the medium term in particular, exchanges would augment production in the developing countries, create a trend towards wage parity, accelerate dissemination of technology and slow the brain drain as the educated classes in developing countries could achieve their aspirations at home. The larger markets in Europe, and those being created in North America, are examples of these beginnings of solutions.

¹ Alejandro Portes and Yozsel Borocz, "Contemporary Immigration: Technical Perspectives on its Determinants and Modes of Incorporation." *IMR*, vol. 23, 1989.

century to World War II, Europe was a region from which people emigrated to the new world. Now, in the second half of the twentieth century, it has also become an attractive zone. The change was radical during a twenty-year period, attributable to Europe's post-war economic expansion. The development of an impressive industrial potential created a strong demand for workers, a demand that could not be met by weak demographic growth. The countries with strong economic development were also those in which birth rates had

strongly declined. For 20 years, Europe accepted immigrants and then stopped. One might wonder what its future will be in this regard. Despite the legislation prohibiting immigration – for reasons of family unification, and through the legalisation of illegal entries – the population is still increasing. Natural growth, however, remains low and on the horizon the burden of demographic dependence will weigh heavily on the shoulders of the depleted classes. Should Europe rescind these decisions and revise its immigration policies?

In post-war migratory movements, the concept of the “guest worker”⁹ has been clearly established. Except for France and Belgium, no other European country has shown any direct concern for demographics when developing migratory policies. The best example was the Federal Republic of Germany where, because of its low natural growth, there might have been more cause for concern than in other countries. The German philosophy held essentially that the population level was of no great concern. A shortage of workers could be filled by importing workers who would return to their countries of origin once Germany’s needs had been met. Obviously, immigration policies even if they are based on the economy have demographic consequences, but those consequences are in a way only secondary effects – good if they produce advantages and of those we have to deal with when they produce disadvantages.¹⁰

European countries, like Germany, offered attractive standards of living for many workers capable of meeting their requirements. Thus, if Northern and Western Europe have become areas attracting immigrants, it is mainly in “labour” and “workers” that the equations of movement have been established. Contrary to happenings in the new world, putting down roots in these circumstances is often an inevitable consequence, but one not desired by the host country.

Mainstream thought since the mid-1980s no longer favours these policies.

The official policy of the governments in Western Europe is not to allow another experiment with guest workers. A number of lessons were learned in the 1960s and 1970s, and first among these is the lesson that temporary immigration brings about a considerable number of permanent immigrants.¹¹

This comment shows, as we shall examine more fully later, that workers recruited to fill jobs are no longer the main supply of permanent residents for Europe. Rather, it is their families and refugees. This foreign population inserted into the host population has acquired social and economic rights and privileges and also contributes to the host countries’ demographic growth.

⁹ The German “Guestarbeiter”.

¹⁰ Read on this topic: “Population policies of advanced societies: Pronatalist and migration strategies”, Charlotte Höhn in *European Journal of Population*, Vol. 3 and 4, July 1988.

¹¹ Thomas Hammar: “Comparing European and North American International Migration” in *International Migration Review*, vol. 23, 1989.

In most cases, the children of the foreign population are born and stay foreigners.¹² So the foreign population is reduced only by a very few who leave the country, and by death and naturalization. Moreover, in addition to the workers who make up the majority, there are asylum-seekers and refugees. Europe does not appear as a region willing to take in immigrants. Despite the precarious demographic balance, its countries' policies are very restrictive in their wording.¹³ Contrary to what happens in the new countries, foreigners are not welcome to integrate into the country where they were asked to come to work. The social fabric is not permeable. While countries such as the United States, Canada and Australia take immigrants because they are highly skilled, European countries more often see foreigners as people to do jobs that the nationals are reluctant to do.

Middle East

The uncompromising concept of the immigrant worker is demonstrated mainly in the Western Asian countries; that is, mostly in the countries around the Persian Gulf. These countries make up two mainly Arab groups that have in the last 30 years been reinstalled at the forefront of the world economy. The wealth that oil has brought to one group, makes a sharp contrast with the other group. The oil-rich countries are sparsely populated and do not have enough workers to develop their assets. To build their infrastructure (buildings, factories, roads, services and so on), these countries must rely on foreign workers both from the poor Arab bloc, and more recently, from more distant Asian countries. However, the demographic situation and the political and religious organization of these states result in very cautious immigration policies. Because their territory is small and their demographic base fragile, they have opted for strictly-controlled temporary immigration based on requirements. This type of migratory movement will be described in Part Three.

South America

South America has some superficial similarities to North America – Argentina is to Canada, including its geography, what the United States is to Brazil. The two continents developed similarly in the late nineteenth and early twentieth centuries but have since diverged. At the beginning of the century, Argentina had an influx of settlers from Spain and Italy about as large as Canada's influx from Northern Europe. Brazil's population was increased by people from Portugal, Italy, Japan, Austria and Germany in addition to its very high natural growth. Since World War II, this subcontinent has undergone an eclipse in appeal as an immigration country. A weak economy has meant that the source countries for their immigrants have lost interest. Technical progress seems too

¹² France and Belgium are the exceptions.

¹³ Livi Bacci, *op. cit.*

slow in this part of Latin America, with vast spaces and abundant resources. It remains underdeveloped and pursues the dream of the agricultural population of the last century. Not only are potential immigrants from the rest of the world disinterested in the area, the descendants of earlier immigrants are seeking to reclaim their European nationality. Uneducated South Americans with deep roots in the continent are crowding into the cities while the better educated and more fortunate are increasingly migrating to North America.

Summary

Because of the notable differences in the characteristics of international migrations, the migration process cannot be defined with a single model. The traditional migrant is only in North America and Australia and even these countries are concerned with the immigrant's short-term "economic yield". This is clearly portrayed in the Canadian and Australian immigration policies. Interest in "settlers" continues to diminish and, in some countries, groups are even questioning their usefulness.¹⁴ On the other hand, the number of short and long work permits are increasing. This results from changes in communication and production techniques. Industry, as much as agriculture, has less and less need for many permanent workers. Management of large operations is concentrated in international firms where, increasingly, high-level technicians are required for only brief stays in heavily populated countries where their companies are active. The era of populating large territories has past.

¹⁴ Economic Council of Canada report.

THE TRADITIONAL IMMIGRATION COUNTRIES

UNITED STATES

Since the end of the war, almost 23 million people have entered the traditional countries of immigration: the United States, Canada and Australia (Table 1). Figures were not included for two less important countries - New Zealand and South Africa - because of lack of data, especially on South Africa's black population.¹⁵

Table 1. Number of Immigrant Arrivals in the Traditional Countries of Immigration, 1950-1986

Years	Australia	Canada	United States	New Zealand	Total
1950-1959	631,613*	1,544,642	2,499,268**	200,000	4,875,523
1960-1964	664,340	458,960	1,419,313	141,310	2,683,923
1965-1969	781,010	909,882	1,794,736	163,629	3,649,257
1970-1974	611,990	794,284	1,823,413	129,611	3,359,298
1975-1979 ¹	344,780	650,633	1,952,240	91,736	3,039,389
1980-1984 ¹	468,050	490,036	2,741,481	221,020	3,920,587
1985-1986 ¹	92,590	183,521	1,113,912	72,225	1,462,248
Total	3,594,373	5,031,958	13,344,363	1,019,531	22,990,225
% of total	16	22	58	4	100
Foreign-born Population (Official estimates from the Census)					
	Number		Percentage of total population		
Australia, 1986 ²	3,594,373		21		
Canada, 1986 ²	3,900,910		16		
United States, 1980 ²	14,079,906		6		
New Zealand, 1981 ²	464,256		15		

¹ Annual immigration statistics from different countries.

² Census year.

* Approximate data.

** Estimated by the author.

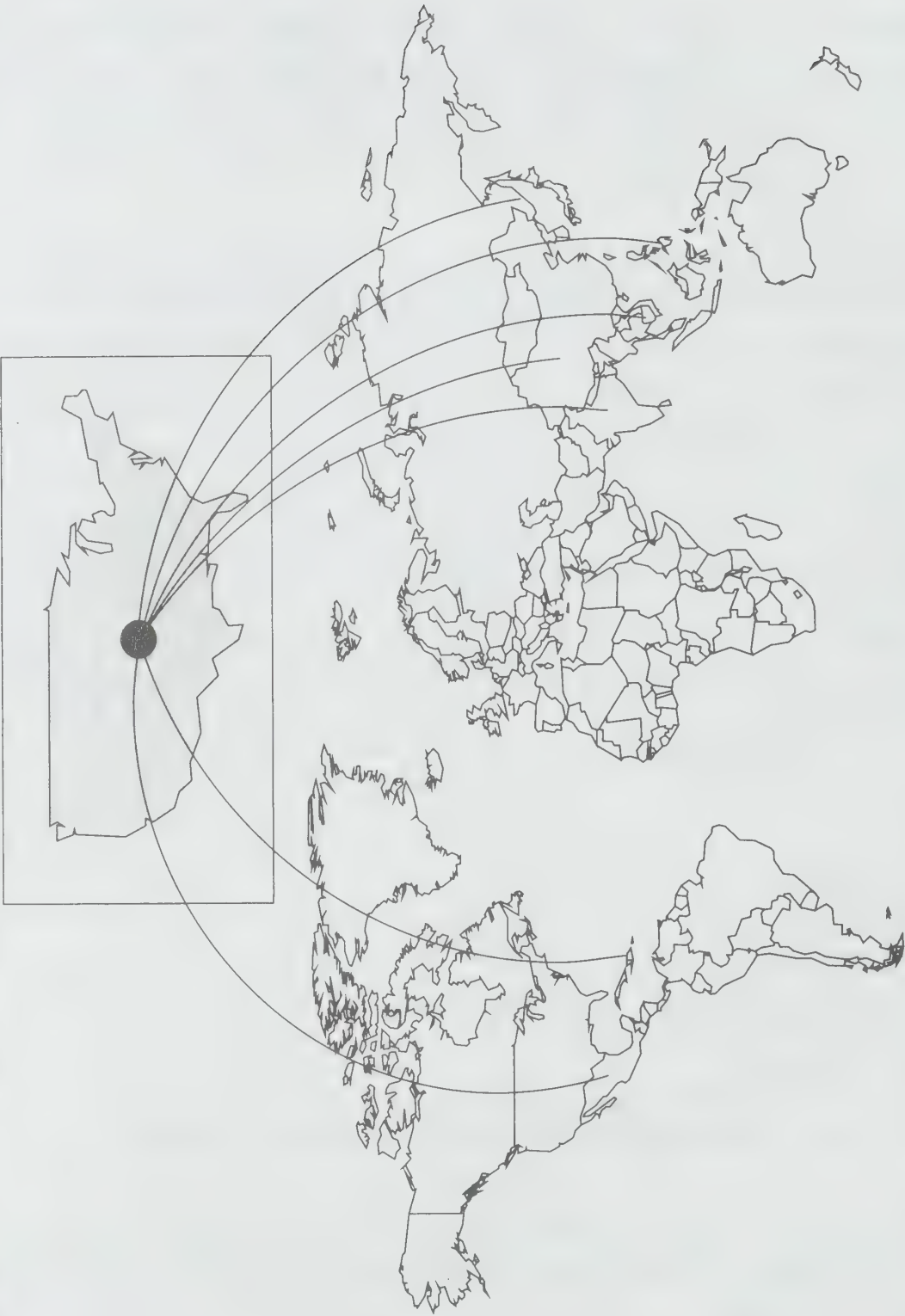
Source: United Nations Secretariat, Social and Economic Affairs Department.

This figure of 23 million should not lead the reader to believe that the population in the traditional countries of immigration increased by this amount, for at least two reasons:

- (1) These countries experienced large-scale emigration at the same time as immigration. (New Zealand, as a matter of interest, has long had negative net migration.)

¹⁵ Numerous important migrations occur in Africa and Asia, but we can't analyze them because we lack statistical data.

Figure 1.
Recent Immigration Flows to the United States



This map summarizes graphically the major migratory flows; it is not an exhaustive description.

- (2) Many population exchanges occurred among the countries in this group, especially between Canada and the United States and between New Zealand and Australia.

Table 1 actually contains two kinds of information: figures on the flow of people and as well as on stock, that is, the number of persons counted in countries who were not born there. Both deserve analysis.

The first point worth noting is the dominant position of the United States for flow of people. This country has received close to 60% of the 23 million immigrants. This is not surprising when attraction is linked to economic power and to a country's dynamism rather than to its available geographic space. Space is only attractive insofar as the wealth it contains can be converted to economic power. This is partially why Canada and Australia attracted far fewer people, despite their impressive territories. On the other hand, comparing stock, the United States seems much less welcoming since the percentage of the population born abroad is the lowest in the group, at only 6.2%. These two pieces of information seem to present a paradox, because the countries to where most immigrants try to migrate are the same countries that place severe entry limitations¹⁶ and, all aspects considered, accept few.

In 1793, George Washington declared: "America is open not only to the rich and respectable foreigner but also to the oppressed and persecuted from all nations and of all religions . . . we will welcome them to share our rights and privileges." We know that his message was heard. For 100 years, no law was promulgated to limit the scope of this declaration. In 1882, the first law based on race prevented entry of Chinese workers.¹⁷ Shortly after, at brief intervals, other laws followed for other categories of persons, and finally the 1921 quota law was refined in 1924. While maintaining the equality principle for all persons entering the United States, it subtly excluded people from Asia and Southern Europe. The basic principles of this law remained in effect until 1965. Since then, selection criteria based on race have been eliminated as limiting factors to immigration but restrictions according to countries¹⁸ remained until the 1990 immigration act came into effect. Not including refugees (the number of refugees admitted each year was set by the President and Congress up to 1991) only 270,000 permanent residents were accepted with a maximum of 20,000 per country of origin, according to a preferential system with six categories (persons subject to limits). Of these 270,000, 80% came

¹⁶ On 1 January 1984 there were 1.6 million persons meeting the requirements for persons subject to limitation. That meant that if no additional people were added to the list, the United States had a backlog of 6 years of applications. U.S. Dept. of State, 1984, Report on the Visa Office (Washington D.C. Government Printing Office 1986) p. 112.

¹⁷ To follow the sequence of immigration laws in the U.S., see *Immigration Statistics, A Story of Neglect*, National Academy Press. Washington, DC. 1985.

¹⁸ The 1976 and 1978 amendments limited to 20,000 the country quotas for both Eastern and Western hemispheres; there were no limits for the Western hemisphere in the 1968 Act.

Table 2. Immigrants to the United States Classified by broad Categories, 1983-1989

Category	1983	1984	1985	1986	1987	1988	1989
Subject to limitation	269,213	262,016	264,208	266,968	271,135	264,148	280,275
Not subject to limitation	290,550	281,887	305,801	334,740	330,381	378,877	810,649
Total	559,763	543,903	570,009	601,708	601,516	643,025	1,090,924

Source: 1989 Statistical Yearbook of the Immigration and Naturalization Service.

under four categories involving family links and 20% came under two categories which favoured professional skills particularly in demand in the United States (Tables 5 and 6).

In 1989, (representative of the recent situation) 19% of entries subject to limitation were justified for employment reasons. It might be concluded that for the recent years¹⁹ about 9% of immigrants (including families) were recruited for their skills, which is very few (7 out of 10 originating from Asia and 3 out of 10 from Europe). All other immigrants, 91%, were not recruited for this reason. However, a large number will enter the job market.

The effect of the changes in the 1965 law was to rapidly change the distribution of immigrants by country of origin. Europe provided 42% of immigrants from 1951 to 1970 and only 11% from 1981 to 1989. Asia, on the contrary, sent 10% of immigrants in the early years and 42% from 1981 to 1989. The rest of the American continent continues to provide the greatest number of immigrants at about 45%. However, important changes have taken place within this percentage. While Canada provided close to 30% of that figure between 1951 and 1971, it provided only 5% between 1981 and 1989. On the other hand, immigration from Mexico rose from 28% to 38%, from the Caribbean it increased from 22% to 30%, and from Central and South America from 19% to 26%. These figures give rise to several reflections.

A look at the situation before 1965 shows that the countries most favoured by the previous act (European countries) did not fill allotted quotas and at times fell far short of doing so. For example, from 1960 to 1964 the United States reserved 65,000 "places" per year for United Kingdom immigrants, but only an average of 28,000 immigrants came. This may indicate that the traditional source countries since World War II are no doubt less attracted by the United States than previously. Borjas²⁰ sees several reasons for this.

¹⁹ Based on calculations for 1983-1988.

²⁰ An American economist, author of many studies on the economic aspect of immigration.

Table 3. Immigrants admitted to the United States by Main Categories, 1988 and 1989

Category of Admission	1989	1988	Change	
			Number	%
Total	1,090,924	643,025	447,899	69.7
I.R.C.A. legalisations	478,814	--	478,814	--
Total excluding legalisations	612,110	643,025	-30,915	-4.8
Subject to Limitations	280,275	264,148	16,127	6.1
Family preference	217,092	200,772	16,320	8.1
1st preference	13,259	12,107	1,152	9.5
2nd preference	112,771	102,777	9,994	9.7
4th preference	26,975	21,940	5,035	22.9
5th preference	64,087	63,948	139	0.2
Work-related Preference	52,755	53,607	-852	-1.6
3rd preference	26,798	26,680	118	0.4
6th preference	25,957	26,927	-970	-3.6
Without preference	7,068	6,029	1,039	17.2
Other	3,360	3,740	-380	-10.2
Not Subject to Limitations ¹	331,835	378,877	-47,042	-12.4
Immediate Family of American Citizens	217,514	219,340	-1,826	-0.8
Spouses	125,744	130,977	-5,233	-4.0
Parents	50,494	47,500	2,994	6.3
Children	41,276	40,863	413	1.0
Including orphans	7,948	9,120	-1,172	-12.9
Other children	33,328	31,743	1,585	5.0
Legalisation of Refugees and				
Asylum seekers	84,288	81,719	2,569	3.1
Amerasians	8,589	319	8,270	2592.5
Special Immigrants	4,986	5,120	-134	-2.6
1972 Register	10,570	39,999	-29,429	-73.6
Cubans/Haitians	2,816	29,002	-26,186	-90.3
Others	3,072	3,378	-306	-9.1

-- Does not apply.

¹ I.R.C.A. legalisations are not limited in numbers.

Source: *Statistical Yearbook, 1989*.

First are demographic reasons. The countries of Europe, because of their more advanced stage of demographic transition, have fewer potential migrants. Furthermore, the decision to migrate, whether clearly thought out or made in confusion, is made because the individual sees some benefit in it. On one hand, economic development in Europe has reduced the comparative advantages of the United States in relation to some countries like Germany, and more generally, the Western and Northern European countries. It would seem that the egalitarian socio-economic regimes that have developed in Europe would, in theory, have generated increased emigration to the United States; in fact, they

DIVERSIFICATION OF COUNTRIES OF ORIGIN

When traditional immigration countries stopped limiting entries for reasons of race or ethnicity, it was predictable that if these countries continued to admit immigrants, the immigrants would come from more diverse countries. All these countries have opted to continue to allow varying levels of immigration. The underlying reasons for these decisions can be placed under several headings. Apart from better economic potential to take in persons in distress, there is a need for qualified workers in certain industrial sectors and a need for capital. As well, those who own capital are needed so it will be adequately managed. There are demographic reasons as well. Canada and Australia especially felt that their natural demographic increase was too low and consequently international immigration was the best way to counteract low birth rates. In addition to these main reasons, are less concrete benefits such as the advantages of more cultural diversity. Some are not convinced of these broadly-accepted advantages and official bodies have not promoted these advantages up to now. As we have seen, Europe's role has diminished considerably while Asia's has increased. Many more people are emigrating from South America and the Caribbean, particularly to the United States. We can see at this point that changes in origin of immigrants also correspond to demographic realities. Since the European countries, where the majority of immigrants originated until now, have almost reached their demographic transition, they now have far fewer excess workers. We cannot know precisely how the political changes of the last few years in Eastern Europe will affect migratory flows. These flows may increase both to Europe and to the traditional immigration countries. The developments in Poland, the first to open its borders, may indicate what the Central European countries may do in the coming years. It is quite probable that Canada will receive a good number of immigration applications.

have probably contributed to keeping the population in the country. He estimates, in fact, that only the very small numbers who are highly educated and skilled have been attracted to the United States. The United States is less egalitarian than their own countries. So the high salaries that these persons can earn from their work gives them more appreciable after-tax financial advantages than they have at home. This is the "brain drain" phenomenon.²¹ Contrarily, the rest of the population is not interested in emigration because they would lose in the exchange. In their country, they are to some extent protected, paying proportionally less taxes than the people earning very high salaries.

²¹ The economic aspects of the "brain drain" have been analyzed by many authors which Borjas cites: among them Walter Adams and Viem Kwok.

Table 4. Distribution of Immigrants Subject to Limitations, according to Category and Place of Origin, United States, 1989

Place of Origin	Total		Family Preference ¹		Occupation ²		Other	
	%	Number	%	Number	%	Number	%	Number
Europe	11.5	32,094	52.5	16,839	30.4	9,757	17.1	5,498
Asia	42.4	118,961	79.0	93,989	20.4	24,284	0.6	608
Africa	2.4	6,689	67.3	4,505	31.9	2,131	0.8	53
Oceania	0.5	1,439	67.8	975	31.9	459	0.3	5
North America	34.1	95,553	83.1	73,399	12.7	12,112	4.2	4,042
Mexico	7.4	20,856	77.1	16,071	9.2	1,918	13.7	2,867
Caribbean	17.7	49,625	93.3	46,280	6.7	3,316	--	29
Central America	7.3	20,340	76.3	15,518	23.3	4,743	0.4	79
South America	9.1	25,538	83.7	21,385	15.7	4,012	0.6	141
Total		280,274		211,092		52,755		10,347

¹ Categories 1, 2, 4, and 5.

² Categories 3 and 6.

Source: *Statistical Yearbook, 1989*.

The same reason accounts for the increasing number of immigrants from less developed countries, where the socio-political situation is the opposite.²² In very inegalitarian countries (such as most of the countries in the Third World), many very skilled persons have less interest in migration for economic reasons since they often own property or businesses, or are associates of owners. They enjoy an excellent standard of living because of the very high income they receive. As well, their skills are often less "exportable" than those of immigrants from European countries.²³ In contrast, among those with less education, many want to emigrate because even a low salary in the United States is far higher than their earnings in their country. Empirical studies also show that the level of skills among immigrants to the United States over the last thirty years has declined.²⁴ These were also the years during which the new selection policy was applied to unit families, and aid was given on humanitarian grounds rather than according to skills.

Reunification of families is certainly a commendable goal, but certain economists claim it has harmful aspects. This has been shown in the United States because of the way the country quotas were organized. Since 80% of immigrants subject to restrictions came under the four family categories, some skilled candidates with no family in the United States did not enter as their place was taken by a person in the family categories who was less competent in some cases.²⁵

²² Borjas, G., *Friends or Strangers; the impact of immigrants on U.S. economy*, New York: Basic Books Inc., 1990, p. 124.

²³ Many graduates from these countries have degrees in fields where there is little demand - arts, philosophy and literature, for example.

²⁴ Borjas, G., op. cit., p. 124

²⁵ Borjas, G., op. cit., conclusion no. 10, p. 21.

From another point of view, these figures show that the countries closest to the U.S. provide the greatest flow of immigrants. For obvious reasons, the move costs less and the immigrants from countries close by “know the ropes”. This is the reason for the large numbers from the Caribbean, Mexico and Central America and to a lesser degree the more distant countries of South America.

In summary, the facts about immigration to the United States up to this time are:

- (1) there are many candidates;
- (2) the numbers of those entering the country are rather low;
- (3) the policy for admission up to now did not appear to be based on a need for skills; rather, many decisions to admit persons have been made for humanitarian reasons.

The New Act

In October 1991, new immigration legislation came into effect: the Immigration Act of 1990 was signed on 29 November 1990 by President Bush, following 10 years of study and discussion. The substantial changes in direction are covered in the following synopsis:²⁶

- While the new Act appears to increase entry visas from 270,000 to 700,000 between 1991 and 1995 and 675,000 after 1995, the increase is not that substantial. The current 270,000 figure does not include close family members of U.S. citizens who entered outside of quotas – about 220,000 persons each year. The new “family” category will in fact increase to 480,000 (254,000 + 225,000) in 1995 making the actual increase 465,000 from 1991 to 1995.
- The most important change concerns workers. Work visas will increase from 54,000 to 140,000, but there will be careful screening for highly skilled persons. The quota for non-specialized workers is reduced to 10,000.
- Creation of the investor category (10,000 visas) could bring \$10 billion into the country every year and create a minimum of 100,000 jobs.
- Quotas per country rise from 20,000 to 26,000 each year.

In sum, it seems the new Act’s philosophy is that immigration should no longer be a generous act of the American population and that immigrants should bring – through job creation and skills – at least as much as they will take from the country in social assistance and retirement benefits. The legislators seem to have been sensitive to economic studies.

²⁶ *Understanding the Immigration Act of 1990*, AILA’s New Law handbook, American Immigration Lawyers Association, NY, 1991, ISBN 1-878677-18-7.

Table 5. Modifications in the Annual Quotas, according to the New Immigration Law in the United States, 1990

Category	1989	From 1991	From 1995
For each independent country	20,000	25,620	N/A
Workers	54,000	140,000	140,000
- Professionals and persons with exceptionnal qualifications	27,000	80,000	80,000
- Qualified and non qualified workers	27,000	40,000	40,000
- Investors	-	10,000	10,000
- Special workers	-	10,000	10,000
Family	216,000	520,000	480,000
- Immediate family	*	294,000*	254,000*
- Children of American citizens, unmarried and legally major	54,000	23,400	23,400
- Spouses and unmarried children of permanent residents	70,200	114,200	114,200
- Married children of American citizens	27,000	23,400	23,400
- Brothers and sisters of American citizens, aged 21 and over	64,800	65,000	65,000
Other	-	40,000	55,000
Total	270,000	700,000	675,000

N/A Not available.

* In 1989, members of the immediate family were not submitted to quotas. It is estimated that 217,500 persons were admitted in this category. On the other hand, the new law will account for the number of members from the immediate family. Their number is still not limited, however, 226,000 must always be preserved for the other sections of the family category.

Naturalization

Naturalization is how a foreigner becomes a citizen, with all the duties and rights that citizenship implies. Naturalization is thus the final phase undertaken by the permanent immigrant. It depends on the wishes of the person who requests it but also, as expressed through laws and regulations, on the goodwill of the society accepting the person. The proportion of immigrants that is naturalized after a given period is a measure mainly of the individual's interest in the country of residence and of the country's interest in accepting the immigrant as one of its citizens. The minimum waiting period for becoming an American citizen is five years.

In the United States, we observe varying behaviour according to country of birth. Some immigrants who arrived between 1970 and 1979 were eager to become naturalized citizens, so that by 1989 a large proportion were American

Table 6. Modifications in the Classification of Immigrants, according to the New 1990 American Law

Category	1989	From 1991
Workers	<p>#3 Professionals and exceptional workers in the science or arts areas</p> <p>#6 Qualified and non qualified workers</p> <p>The previous law did not account for the representatives of different religious cults.</p>	<p>#1 Priority workers: Without work certificates. Foreigners with extraordinary skills, professors and researchers having achieved excellence and selected businessmen, affiliated with multinational companies.</p> <p>#2 Professionals with at least a Master's degree and foreigners with exceptional skills in science, arts or business areas. These workers must have a work certificate.</p> <p>#3 Qualified workers, professionals starting a career, and non qualified workers. All must have a work certificate. The annual number of non qualified workers cannot exceed 10,000.</p> <p>#4 Special workers: This category is mostly made up by representatives of various religious cults.</p>
Family	<p>Includes the immediate family, in unlimited numbers, plus the preferential system:</p> <p>#1 Children of American citizens, unmarried and legally major</p> <p>#2 Spouses and unmarried children of permanent residents</p> <p>#4 Married children of American citizens</p> <p>#5 Legally major brothers and sisters of American citizens</p>	<p>Immediate family is not submitted to a quota. It is, however, included in the family category. 26,000 annual entries must be reserved for persons wishing to qualify under the remaining sections of this category, which include:</p> <p>1) Children of American citizens, unmarried and legally major</p> <p>2) Spouses and unmarried children of permanent residents</p> <p>3) Married children of American citizens</p> <p>4) Legally major brothers and sisters of American citizens</p>
Other		<p>This category is mostly reserved for those countries which do not contribute much to immigration up to present. The applicants must have a high school diploma or two years of work experience.</p>

citizens²⁷ (Vietnamese 74%, Chinese 62%, Koreans 57%, Indians 48%). In contrast, others, such as Canadians (11%) and Mexicans (13%), showed much less eagerness. Emigrants from the other principal countries fall between the two extremes. They come from countries as diverse as Greece (37%), Colombia (32%) and Italy (22%). However, two facts seem clear. First, on average, the proportions are high. Second, Asians show the most interest. The most plausible explanation is that those most anxious to become naturalized are refugees or, in a general way, those requesting asylum. In a sense they are citizens of nowhere. However, these figures have to be handled with care in making direct comparisons with other countries because of immigrants' returning to their country of origin, mortality, interruptions in their stay, knowledge required by the Act, and so forth.

What the IRCA Reveals

Although 1.1 million people immigrated to the United States in 1989 (up from 643,814 in 1988), this figure includes legalization of 478,814 foreigners who had been in contravention of the law. The 1986 Immigration Reform and Control Act (IRCA) was enacted because the numbers of unauthorized persons in the United States were suspected to be high, and because for many reasons it was impossible or untimely to expel them. This form of amnesty reveals a very serious illegal immigration problem. Estimates vary according to source and to the ideology authors apply in defining who is illegal. This amnesty was intended for foreigners residing continuously on American soil since 1982 and for agricultural labourers working with perishable goods in 1986. Because 1.76 million persons in the first category and 1.28 million in the second came forward and only 478,814 were admitted as permanent residents in 1988, it can be predicted that others will be admitted in the 1990s. We might then expect that the statistics for immigrants will remain high in years to come. The majority of legalized immigrants are Mexicans or Central Americans (85%). This source of "immigration pressure" will very likely be augmented with another from the USSR and Eastern Europe. In 1989, 38,000 refugees came from the USSR and 50,000 were expected in 1990.

CANADA²⁸

Table 1 shows that Canada is a distant second to the United States in the bloc of traditional immigration countries with 22% of immigrants. On the other hand, the percentage of Canada's foreign-born population indicates a more welcoming country (16%). This is not a new situation. Since early in

²⁷ Department of Justice, *Statistical Yearbook of the Immigration and Naturalization Service*. US, September 1990, p. XI.

²⁸ This section on Canada will seem brief. Readers will find substantial information on this topic in previous reports, as well as in the publication of W.E. Kalbach, R. Lachapelle and in the *Canadian Immigration and Population Study* (see bibliography).

Figure 2.
Recent Immigration Flows to Canada



This map summarizes graphically the major migratory flows; it is not an exhaustive description.

the century, censuses have shown a foreign-born percentage varying from 13% in 1901 to 22% in 1921. Since the end of World War II, this percentage has varied among censuses within the more narrow range of 15% to 16%. Roughly one person in seven was born outside of Canada.

Broadly speaking, Canada's performance on immigration over the course of history is similar to the United States. Like the United States, Canada initially had a policy that favoured the white race for most of its history. Canada was also especially interested in Northern European, and if possible Anglo-Saxon, immigrants. However, early in its history, Canada opened its doors to other Europeans. But the great policy change occurred in 1962, when race obstacles to immigration were abolished. In 1967, the point system was initiated to select independent immigrants. A new act was promulgated in 1976 and came into effect in 1978. The act makes the Minister responsible for setting immigration levels for the coming year or years in consultation with the provinces. However, unlike the United States, no limit per country nor general quota is imposed. All accepted immigrants are included as "landed immigrants" including refugees, but only independent immigrants and assisted relatives are subject to the point system. The goals of the Canadian act are explicit: reunification of families, concern for refugees and promotion of Canada's demographic, economic and cultural objectives.

It is difficult to compare Canada and the United States by categories of immigrants. We should confine our study to two large groups: those selected for their immediate economic "interest" and others. From 1985 to 1989, Canada accepted 54% of its immigrants because they belonged to one of the categories not subject to the point system. Consequently 46% were subject. The flow of immigrants varies in cycles so that trends may be concealed if two specific years are compared. It is wiser to compare periods.

The annual average was 102,300 landed immigrants for 1981-1985 and 151,300 for 1986-1989, a difference of almost 50%. But all categories did not vary in the same proportion. The whole category for family, assisted relatives, retirees and refugees rose from 75,000 to 83,000, an increase of 11%, while the number of entrepreneurs and independent workers went from 27,000 to 68,000, an increase of 152%. This shows that when economic conditions are favourable, Canada maintains the same number of immigrants to whom it feels it has an obligation, and practises recruitment of others based on probable economic profitability. It is truly a matter of probability because the selection process does not identify a person who will prove to be a "good immigrant". The point system favours skills and the education associated with them, and the results up to now show that immigrants have succeeded economically, better (using raw indices) than native-born Canadians.²⁹ The

²⁹ Basavarajappa, K.G., R. Beaujot and R.B.P. Verma, *Income of Immigrants in Canada: a Census Data Analysis*, Ottawa, Supply and Services Canada, 1988.

Table 7. Distribution of Landed Immigrants according to Different Categories, Canada, 1985-1989

Category	1985		1986		1987		1988		1989		1985-1989		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Increase %
Family	38,514	46	42,197	43	53,598	35	50,618	32	60,774	32	245,701	36	58
Refugees and Designated Persons	16,760	20	19,147	19	21,565	14	26,462	17	37,004	19	120,938	18	121
Aided Parents	7,396	9	5,890	6	12,283	8	15,320	10	21,520	11	62,409	9	191
Entrepreneurs	4,959	6	5,866	6	8,440	6	11,115	7	12,984	7	43,364	6	162
Independent Workers	1,522	2	1,629	2	2,313	2	2,652	2	2,309	1	10,425	2	52
Investors	--	--	23	--	316	--	1,011	1	2,271	1	3,621	1	--
Independent Immigrants	15,151	18	24,467	25	50,921	33	49,163	31	51,574	27	191,276	28	240
Retired	--	--	--	--	2,662	2	3,096	2	3,564	2	9,322	1	--
Total	84,302	100	99,219	100	152,098	100	159,437	100	192,000	100	687,056	100	128

Source: Employment and Canada, *Immigration Statistics*, Catalogue No. WH-515.

opposite is true in the United States. However, as in the United States, recent immigrants have less education and fewer skills than those in previous waves. Immigration to Canada has always fluctuated with the “needs” of the economy. We can easily see, from the historical levels of immigrants, a relationship between levels of admission and the country’s economic health.

Naturalization

The majority of Canadian citizens who were foreign-born became citizens through naturalization. As a general rule, citizenship is granted to landed immigrants who apply and are eligible. To be eligible, applicants must have lived in Canada for three of the four years prior to their application, have adequate knowledge of one of the official languages and of the country’s history, geography and political system. They must also be aware of the rights and responsibilities of a citizen.

Annual statistics show the average length of permanent residence of persons who became citizens by country of former allegiance. For new citizens, as a group, the variations are quite small – from 1981 to 1989 the average length of residence varied from 6.37 to 8.98 years. However, this average conceals very different figures according to country.

**Table 8. Average Duration of Residence of Immigrants in Canada
Prior to Naturalization, 1981-1989**

Year	Average Delay (in years)
1981	8.98
1982	7.97
1983	7.27
1984	7.09
1985	6.37
1986	7.57
1987	8.00
1988	8.30
1989	8.10

Source: Multiculturalism and Citizenship Canada, Canadian Citizenship Statistics, 1989. Catalogue No. C1-52-7/1989.

The period of residence prior to becoming a citizen is short for nationals of Third World countries and much longer for immigrants from European countries or the United States.

Table 9. Number of Immigrants and Average Duration of Permanent Residency prior to Receiving Canadian Citizenship, according to Previous Nationality, Canada, 1989

Previous Nationality	Average Duration of Residency	Number of Naturalized Immigrants
Afghanistan	3.4	286
Austria	18.5	129
Bangladesh	3.1	264
Barbados	10.0	256
Belgium	12.7	167
Brazil	6.8	173
Cambodge	4.7	504
Chili	8.6	761
China	5.0	3,988
Colombia	8.0	283
Czechoslovakia	4.4	882
Denmark	22.3	122
Egypt	4.7	384
El Salvador	4.2	2,110
Equator	11.3	309
Ethiopia	4.2	344
France	8.7	1,079
Fuji	8.7	586
Germany	22.0	289
Ghana	4.3	171
Greece	12.6	772
Guatemala	4.3	494
Guyana	5.0	2,684
Haiti	4.5	1,336
Hong Kong	4.5	3,500
Hungary	5.1	650
India	7.2	3,278
Irak	4.1	305
Iran	3.9	1,621
Ireland	13.2	464
Israel	4.5	584
Italy	21.8	2,102
Jamaica	7.8	2,573
Japan	11.5	158
Jordania	5.0	153
Kenya	5.6	174
Korea	5.6	634
Laos	5.9	221
Lebanon	4.4	1,744
Malaysia	6.1	356
Malta	19.3	204
Maroc	4.0	319
Mexico	5.9	478
Netherlands	17.3	646
New Zealand	10.7	151

Table 9. Number of Immigrants and Average Duration of Permanent Residency prior to Receiving Canadian Citizenship, according to Previous Nationality - Concluded

Previous Nationality	Average Duration of Residency	Number of Naturalized Immigrants
Nicaragua	3.8	306
Pakistan	5.1	468
Peru	4.4	416
Philippines	4.9	3,233
Poland	5.5	3,673
Portugal	14.4	2,871
Romania	4.2	702
South Africa	7.2	380
Spain	13.1	189
Sri Lanka	4.7	1,033
Switzerland	8.2	340
Syria	3.9	342
Taiwan	4.4	301
Tanzania	5.1	398
Trinidad and Tobaggo	13.8	1,855
Turkey	7.1	322
United Kingdom	14.1	10,885
United States	15.7	1,853
Vietnam	4.6	5,884
West Germany	17.2	690
Yougoslavia	10.5	715
Stateless	4.0	7,822

Source: Multiculturalism and Citizenship Canada, Canadian Citizenship Statistics, 1989. Catalogue C1-52-7/1989.

However, while this information is of interest, it is not the most pertinent, because immigrants have not come to Canada in a steady flow from all countries over the last 30 years. We might suspect that Europeans, naturalized to Canada in 1989, would be part of flows that have been greatly reduced for several years. Since regardless of nationality, naturalizations are distributed on a curve that is skewed to the right, a large proportion of naturalized persons of European origin likely falls on the right of the distribution curve.

It is more accurate to analyze the rate at which a group of landed immigrants become citizens. By calling Time 0 the probable period of a few months' residence when the year of arrival coincides with that of naturalization, Time 1 the difference of one year, and so forth, we can see that for typical countries the mode is always at Time 4 but its value varies quite considerably according to country of origin.

Table 10. Modal Value (per 1,000) of the Distribution of Naturalized Immigrants in 1989, Selected Countries of Origin and Proportion of the Naturalized Cohort after 10 Years

Country of Origin	Modal Value	Proportion of Naturalized Immigrants %
Jamaica	178.2	47.5
India	206.5	46.7
Philippines	466.1	77.1
South America	121.7	27.8
United Kingdom	131.8	25.4
Poland	674.8	88.4
Portugal	132.2	33.3

Source: Canadian Citizenship statistics. Department of Supply and Services, Catalogue Ci 52-7/1989. Calculations made by the author.

For all those naturalized in 1989, the modal value is 308 per 1,000 but this value is only 121.7 for new Canadians from the United Kingdom while it is 674.8 for persons originating from Poland.

The proportion of the group naturalized after 10 years varies similarly, from 25% for persons originally from the United Kingdom to 88.4% for persons from Poland.

In sum, we see the same pattern as for the United States – overall, nationals of countries with many refugees or difficult economic conditions are eager to become naturalized.

Illegal Immigration

Illegal immigration does not seem to be a great concern in Canada. Firstly, Canada's laws do not present a strong barrier to persons who want to immigrate. In practice, the immigration process is long and requires some knowledge of how it works, which no doubt discourages some persons who would like to apply. Also, physical access to Canada is relatively difficult, given that the only shared border is with the United States, which absorbs a great number from Central and South America who might initially be interested. Moreover, Canada's social organization makes it difficult to conceal many illegal immigrants. Since society takes care of the inhabitants' essential needs – hospital care, unemployment insurance, social welfare, and so on – it is easy to identify large groups; in this way Canada differs from the United

States. While the news media now and then claim large numbers of illegal immigrants exist, investigations have never substantiated the claims. Everything seems to indicate that illegal immigrants number a few tens of thousands at most.³⁰

AUSTRALIA

Australia's immigration history has been more marked by racism than the other two countries. After a period of openness in the 19th century, the government opted for strict selection of white immigrants in 1901. Until 1972, Australia lived under the "White Australia Policy". Since the 1901 Immigration Restriction Act, which was amended seven times before being replaced by the Migration Act in 1958, immigration to Australia was practically limited to white persons, preferably of British birth. These very severe restrictions also resulted in limited immigration during this long period. During World War II, political leaders realized that an immense country with a sparse population was politically fragile. Arthur Calwell, Immigration Minister at the time, drew attention to this with his slogan, "Populate or Perish". He suggested increasing the Australian population through immigration by 1% a year saying: "We need (additional population) for defence and for the fullest expansion of our economy."³¹ However, while the country accepted 170,000 displaced persons from Europe, it remained relatively closed. Australia continued to favour immigrants from Britain; the government paid the travel costs for them and their families.³² Close to a million people settled in the country under this plan between 1947 and 1955. Australia also signed bilateral agreements with certain countries resulting in the rather unexpected list of countries supplying immigrants from 1959 to 1979 (Table 11). It was only in 1972 that all racial discrimination ended.

Since that time, immigrant origins have diversified, and Asia has become increasingly important as a source country. In particular, the numbers have increased from Hong Kong, the Philippines and, because of refugees, Vietnam. At the same time, Europe's role declined.

As in Canada, new immigrant admissions in Australia fluctuate with economic conditions and according to previously set levels. These levels also show the effects of the country's old concerns. When the most recent levels were set, the opposition's pronouncements were taken into account. They said that a policy was needed whereby "Australia will remain united" and that the government should make sure that the number of immigrants from any one region or country was not so high that "it endangers social harmony".

³⁰ In Canada, illegal immigrants are usually persons who remain in the country after expiry of their visa (work, visitor, student).

³¹ This increase remained the official goal until the early 1970s.

³² The voyage was free for former military personnel and their dependents until February 1955. Then, British immigrants over 19 paid 10 £, the Australian government paid the rest. Those under 19 travelled free. Lodging in hotels built for this purpose was also free for many weeks.



Figure 3.
Recent Immigration Flows to Australia

This map summarizes graphically the major migratory flows; it is not an exhaustive description.

Table 11. Number of Immigrants to Australia by Country of Birth

County	1959-1970*		1982-1986*	
	Number	%	Number	%
Africa	37,750	2.52	17,330	5.2
South Africa	7,860		8,970	
Other Commonwealth countries	15,718		-	
America	36,060	2.41	21,570	6.5
Canada	8,690		3,500	
United States	20,710		6,550	
Asia	79,750	5.33	130,130	39.2
Chypria	6,050		1,160	
Hong Kong	1,990		9,800	
India	15,790		7,350	
Malaysia	4,710		8,280	
Lebanon	15,220		7,200	
Turkey	7,860		2,950	
Philippines	1,190		12,900	
Vietnam	-		33,860	
Europe	1,282,640	85.72	120,390	36.3
United Kingdom and Ireland	672,860		69,690	
Germany	53,670		7,830	
Greece	126,710		2,690	
Italy	155,490		2,300	
Netherlands	39,910		3,240	
Yugoslavia	97,340		5,830	
Poland	13,320		8,220	
Oceania	43,550	2.91	42,490	12.8
New Zealand	30,970		35,000	
Others	16,500	1.10	20	
Total	1,496,250		331,920	

* Fiscal years.

Source: Australian Immigration, *Consolidated Statistics No. 14*, 1986, table C.4, page 33; No.13, 1982, table 24, page 60-61.

Immigrants are accepted into Australia through “programs”, the most important of which are for reunifying families and for independent workers. Although not continuous, the decline in entries in 1987 through the family reunification program and increase in independents demonstrates the need for technicians and investors. This observation is even more true in 1990. The proportion of specialized immigrants was 30% in 1988-1989 and 35% in 1989-1990.

Immigrants in the “business” category increased 39% over 1987-1988. On the other hand, while immigrants in the family category represented 41% of entries in 1989-1990, their numbers were 30% lower than in the previous year. However, a recent policy change indicated “it was the government’s intent to considerably reduce the number of entries for reasons of job availability.”³³ The third program is for refugees. The annual number of refugees accepted since 1985 has been about 10,000. Previous levels were slightly higher.

Table 12. Distribution of the Enumerated Population Born Outside Australia in various Censuses, by Continent of Birth

Year of Census	Population Born Outside Australia		Proportion by Birthplace				
	Number	%	Africa	America	Asia	Europe	Oceania
1901	857,576	22.7	0.3	1.5	5.5	87.9	3.0
1911	756,865	17.0	0.7	1.5	4.9	87.8	4.3
1921	839,579	15.4	0.8	1.4	3.6	88.6	4.7
1938	903,273	13.6	0.9	1.3	2.7	89.4	5.2
1947	744,187	9.8	1.0	1.6	3.2	87.6	6.1
1954	1,286,455	14.3	1.2	1.1	4.0	89.8	3.5
1961	1,778,780	16.9	1.6	1.1	4.4	89.7	2.9
1971	2,579,318	20.2	2.4	2.2	6.5	85.2	3.5
1976	2,718,832	20.1	2.6	3.0	8.8	81.3	3.9
1981	3,003,834	20.6	3.0	3.2	12.4	73.3	7.1

Source: Australian Immigration, *Consolidated Statistics*.

Summary

The three countries traditionally accepting the majority of known immigrants from the rest of the world have some traits in common and some differences.

The dominant culture in the three countries is Anglo-Saxon. Historically they selected their immigrants through race criteria, preferring immigrants from Northern Europe, especially the British Isles. They abandoned these discriminatory policies at almost the same time – around the 1960s – to admit persons from other parts of the world, in particular from the greatest pool of humanity: Asia. They are countries with territory so vast that average population densities are low and they appear to have great capacity to accept immigrants. As well, the three countries increasingly control immigration.

The differences lie mainly in the methods of control. All three countries have two categories of immigrants – those whose entry is limited and those who face no specific restraint. Only the United States sets annual quotas by

³³ Hawkins, 1989: 298.

country: Canada and Australia set objectives without rigid limits. All three countries are open to refugees but their policies differ. As a whole, the main program in the three countries is reunification of families, but Canada and Australia also emphasize the economic role of immigrants in the country (growth and bringing knowledge and skills). Up to now, the United States has given only cursory attention to this aspect (55,000 persons out of 270,000). However, a significant segment of immigrants to the three countries join the job market, despite their admittance category. No doubt because of overall recruitment policy, recent studies show that immigrants to the United States have salaries lower than native Americans; the reverse is true in Canada and Australia.³⁴ Immigration plays a much smaller role in the U.S. job market than in the other two countries, perhaps explaining why the United States is not very competitive in attracting skilled immigrants. Other persons consider that this situation results from unforeseen secondary effects of changes in the 1965 Act in comparison to the past. The 1965 Act changed the origins of immigrants resulting in new arrivals that were less skilled than in previous periods. The new law is apt to change this situation. The proportion of immigrants coming from Europe, where the probability of recruiting highly-skilled immigrants is high, is lower than in Canada and Australia (Table 13).

Table 13. Immigrants to Australia, the United States and Canada, according to Continent of Birth, 1982-1986

Place of Birth	Country of Immigration					
	Australia		United States		Canada	
	Number	%	Number	%	Number	%
Africa	17,330	5.2	79,518	2.8	22,061	4.6
America	21,570	6.5	1,072,936	37.4	117,204	24.3
Asia	130,130	39.2	1,380,180	48.1	206,631	42.9
Europe	120,390	36.3	317,672	11.1	129,649	26.9
Oceania	42,490	12.8	19,133	0.7	6,284	1.3
Other	20	--	75	--	235	--
Total	331,930	100.0	2,869,514	100.0	482,064	100.0

Source: Statistical Yearbooks from Australia, the United States and Canada.

How desirable is immigration?

This question would have seemed incongruous in the past and would still seem so to many who believe that immigration fosters growth and consequently increased economic well-being. However, some people in the three countries have always had reservations about large-scale immigration. Especially in slow economic periods, immigrants are seen to take jobs from citizens. Recent

³⁴ Borjas, 1990.

studies in the United States and Canada cast doubt on this, mainly because immigrants and citizens are not in a competitive but rather in a complementary situation.³⁵ There are also arguments about the contribution immigration makes to the country's economy. While recognizing that these countries were founded on immigration, some, from the short-term view, say they doubt the benefits of immigration. They argue that the immigrant, not the country, benefits from the move. They demonstrate that economies of scale are negligible and they suspect that, on average, immigrants cost more in social assistance and language training than they contribute through spending.³⁶ This might ignore, however, that the long term wealth of a whole is the sum of the wealth of its parts, although it brings to light that immigrants cost the country a significant amount at the time of arrival and during integration into the society, apart from the risk of social problems arising later.

MIGRATION IN EUROPE

Introduction

The traditional immigration countries changed their immigration policies one after another in the mid-1960s. This certainly was not by chance nor did it reflect a simple desire to diversify the ethnic character of their populations. Europe had once been the source of almost the entire population of the Americas and Australia. Now, if it represented only a secondary fraction of the flow of immigrants, it is because things had changed in Europe. We shall see in the following pages how the phenomenon of searching for work, which spread to the Middle East and the Americas themselves, began in this part of the world. It must be remembered that the South-North pressure, which is now characterized as pressure put on the industrialized countries by Third World countries, was historically from Southern Europe on Western and Northern Europe. After growth ended in 1973, Europeans took stock of the results of 20 years of open migration. Since the European economy has become more international and a rival economy has failed, understanding what happened in Europe can help to clarify the American and Canadian situations.

In 1980, the United Nations published a historical table of net migration in Europe from 1950 to 1974.³⁷ The table followed conventional geographic divisions, delineating four Europes: Eastern, Northern, Mediterranean and Western. Using statistics published annually by the various countries, the author has attempted to update this table to 1988.

³⁵ Borjas: 1990 and Economic Council of Canada.

³⁶ *New Faces in the Crowd*, a summary report of the Economic Council of Canada, 1991. p. 8 and after.

³⁷ *Trends and Characteristics of International Migrations since 1950*. United Nations, Demographic studies, no. 64. New York. 1980.

Figure 4.
Principal Immigration Flows to Europe before 1973



This map summarizes graphically the major migratory flows; it is not an exhaustive description.

Table 14. Net Migration Estimates for Selected European Countries, 1950-1988 (in thousands)

Area and Country	Net Migration Estimates			
	1950-1960*	1960-1970*	1970-1980**	1980-1988**
Total	-3,011	4,641	1,712	1,459
Eastern Europe	-2,741	-1,031	-960	-773
Bulgaria	-163	-15	-145	-32
Czechoslovakia	0	-174	-49	-82
East Germany	-2,056	-433	-89	-159
Hungary	-164	9	-13	0 ¹
Poland	-220	-306	-560	-403
Romania	-138	-112	-104	-98 ²
Northern Europe	-500	-278	-124	106
Denmark	-52	20	31	31
Finland	-73	-164	-6	9
Ireland	-397	-161	-100	-115
Norway	-14	4	40	61
Sweden	93	204	126	66
United Kingdom	-57	-181	-215	54
Southern Europe	-3,475	-3,676	-137	976
Greece	-196	-364	160	111
Italy	-1,166	-792	-223	537
Malta	-43	-35	-5	2
Portugal	-662	-1,234	-42	191
Spain	-826	-551	-27	135
Yugoslavia	-582	-700	N/A	N/A
Western Europe	3,705	4,919	2,933	1,150
Austria	-141	38	74	N/A
Belgium	59	152	111	-24
France	1,080	2,177	731	167
Germany	2,546	2,047	1,854	637
Luxembourg	7	15	27	7
Netherlands	-142	92	329	188
Switzerland	296	398	-193	175

N/A: Data not available.

¹ 1980-1986.

² 1980-1984.

Source: * Data published by the United Nations: *Trends and characteristics of International Migrations since 1950*, Demographic Studies No. 64. - ST/ESA/SER.A/64.

** National statistics. The net migration has been calculated by subtracting natural increase from the total growth of the population.

Generally, several observations are suggested:

- (1) Eastern Europe, then composed of communist countries, had significant losses - 1 million to 2.7 million people in every decade since 1950;
- (2) Countries in the three other European regions have predominantly market economies, and quite different histories since the end of the war. Only one region, Western Europe, has always had a positive balance sheet. Over 38 years, the total gain may have been some 13 million persons, and 1960-1970 showed the highest gain of some 5 million persons;

- (3) Northern Europe over the first three decades experienced progressively lower losses and showed an increase in the fourth decade;
- (4) Southern Europe showed the same pattern but the numbers are much higher. After a negative balance of 7 million from 1950 to 1970, the number dropped to negative 140,000 between 1970 and 1980, and grew to a positive balance of about 1 million for the last 10 years.

Jobs and Workers

After being severely affected by World War II, Western Europe experienced strong economic development in the post-war period. In facing the problem of rebuilding, it undertook economic restructuring by integrating its agents. This resulted in formation first of the European Coal and Steel Community and later the EEC (European Economic Community) in 1964. This in turn created a need for workers – a need the countries could not fill. They had experienced great losses in the war and were for the most part countries with declining fertility rates.³⁸ The free movement of workers was adopted in the EEC but this was of no great utility since the participating countries were short of workers. The need for labourers was so great that it persisted even after West Germany had taken in close to 2.5 million persons fleeing communist regimes in Eastern Europe, and despite France's repatriation of more than 1 million persons from former colonies (in particular, Algeria after the treaty of Evian). To a lesser extent, Belgium had repatriated people when the Congo became Zaire. If we concentrate on the two largest countries of Western Europe, we see that after 1957 Germany began to attract Italians, Spaniards, Yugoslavians, and Turks from Mediterranean Europe. Although Table 15 was compiled for 1975, it gives an idea, by counting workers, of immigration over the preceding years.

France drew from almost the same sources as Germany, although with fewer immigrants from Turkey and more from Portugal. In general, the other smaller European countries had an identical history (Switzerland, Luxembourg, Netherlands and so on). Other countries, such as Morocco, also provided Western and Northern Europe with people. This demand for workers was in a way the positive side of a demo-economic situation of which the negative aspect was seen in the conjuncture in Southern Europe. Before World War II, Northern and Western Europe had rapidly industrialized and become urban, experiencing a coincident decline in fertility. Southern Europe remained less developed and rural and had a high birth rate. Only in the post-war period did mechanized agriculture increase which in turn freed workers. Some of these workers emigrated in the traditional way to America, but Europe had no problem in retaining significant numbers. An estimated 6.6 million foreign workers were employed in Western Europe in 1973,³⁹ representing one worker in seven. The

³⁸ Except for the Netherlands.

³⁹ Bernard Kayser: "European Migrations: The New Pattern", in IMR, vol. 11, 1977.

Table 15. Estimated Number of Foreign Workers in Various European Countries - 1975

Emigration	Immigration Country									
	Austria	Belgium	France	Germany	Luxembourg	Netherlands	Sweden	Switzerland	United Kingdom	Total
Algeria		3,000*	420,000*	2,000*		--	200*	--	500*	
Austria			--	78,000		--		21,000	--	
Finland			--	--		--	103,000		--	
Greece		8,000*	5,000*	212,000		2,000	8,000	--	2,500	
Italy	2,000*	85,000*	210,000*	318,000	11,000	10,000	2,500	281,000	56,500*	
Morocco		60,000*	165,000*	18,000*		28,000	500	--	1,000*	
Portugal		3,000*	430,000*	70,000	13,000	5,000	1,000	4,000	4,000*	
Spain		30,000*	250,000*	132,000	2,000	18,000	2,000	72,000	15,500*	
Tunisia			90,000*	15,000*		1,000	200	--	--	
Turkey	26,000	10,000*	35,000*	582,000		38,000	4,000	16,000	1,500	
Yugoslavia	136,000	3,000*	60,000*	436,000	1,000	10,000	23,000	24,000	3,500*	
Other	21,000	76,000*	235,000*	328,000	21,000	104,000	60,000	135,000	690,000*	
Total	185,000	278,000*	1,900,000*	2,171,000	48,000	216,000	204,000	553,000	775,000*	6,328,000

* Estimates published in 1974.

Source: Sopemi, 1976.

SOPEMI

SOPEMI is the acronym for Système d’Observation Permanente des Migrations/Continuous Reporting System on Migration. This is one of many OECD bodies and is part of the Directorate for Social Affairs, Manpower and Education. This organization, which publishes an annual report, grew out of the need to coordinate many countries’ data on immigrants, emigrants, workers, foreign populations and so forth. It has correspondents in the contributory countries. Because of this, SOPEMI is mainly a secretariat, collecting information and distributing it unaltered. Consequently, the concepts vary from one country to another, as do the time frames for the statistics. The same is true for quality of information, since the agencies responsible for collecting the data do not work with the same bases and so on. Moreover, not all countries are members. SOPEMI is thus a source of important information, improving with time, but with some very marked shortcomings. On the other hand, we find some specialists’ analyses of the present situation of particular topical interest.

majority came from the South. SOPEMI provides similar figures for 1975. The 1973 “oil crisis” slowed economic activity throughout the Western World. Europe was particularly affected. This slowdown meant fewer workers were needed so fewer workers came in (Table 16). Most European countries had planned previously that foreigners would return home when their work was no longer required.⁴⁰ Things did not work out that way. In Germany, they refer to this idea saying: “We expected workers and men arrived.”

From 1974 to 1978, studies⁴¹ show that the number of foreign workers dropped by about 775,600, at least in the four countries with available statistics – Austria, Germany, Switzerland and France. On the other hand, foreign populations grew in the Netherlands, Sweden and Belgium by about 85,800. So the decline in foreign workers in Europe is not such a prominent trend as is sometimes thought, especially since the reduction stems from persons returning to countries of origin, those retiring from jobs without leaving the country as well as from a decrease in entries. Table 17 and Figure 5 show this phenomenon for Germany.

By collating the figures from SOPEMI, an estimated 600,000 workers may have returned – 235,000 to Italy, 200,000 to Spain, 145,000 to Yugoslavia, 100,000 to Turkey and 60,000 to Greece – between 1974 and 1975. By extrapolation,

⁴⁰ Only France and Belgium considered demographic matters when they opened their borders.

⁴¹ A. Lebon and G. Falchi in “New developments in intraeuropean migrations since 1974”. In *International Migration Review*, Volume 14, 1980.

Table 16. Number of Foreign Workers Entering Different European Countries
(1973-1978)

Country of Immigration	1973	1974	1977	1978	Comments
West Germany	319,072	46,321	29,700	19,521	Permanent workers, excluding those from the E.E.C.
Belgium	5,892	6,129	4,716	3,861	Workers, excluding those from the E.E.C.
France	143,480	53,436	14,249	1,021	Permanent workers, excluding those from the E.E.C.
Sweden	13,000	17,000	12,000	10,000	Workers from the Nordic Region, and other countries (estimates).
Switzerland	49,708	31,302	19,733	21,855	New workers, hired for a year or permanently.
Netherlands		11,000*	2,100	N/A	Workers coming from seven countries.
Austria	263,446	189,841	116,861	81,122	First work permits ever delivered.

* For 1975.

N/A: Not available.

Source: SOPEMI National Reports.

Table 17. Foreign Residents and Migration Flows to West Germany
(in thousands)

Year	In-migrants ¹	Out-migrants ²	Net Migration	Number of Foreign Residents ³
1973	869	526	343	3,966
1974	538	580	-42	4,127
1975	366	600	-234	4,090
1976	387	515	-128	3,948
1977	423	452	-29	3,948
1978	456	406	50	3,981
1979	545	366	179	4,144
1980	631	386	245	4,453
1981	501	416	85	4,630
1982	313	433	-120	4,667
1983	273	425	-152	4,535
1984	331	545	-214	4,364
1985	398	367	31	4,366
1986	478	348	130	4,483
1987	472	334	138	4,630
1988	649	359	290	4,489

¹ Movements accounted for in municipal registers (including asylum seekers) and quoted in the central foreign population register.

² Movements accounted for on municipal registers, and reported on the central foreign population register. This includes the out-migration of asylum seekers who were not admitted to the country as political refugees.

³ Data as of 30 September of every year, based on the central foreign population register, summarizing the data collected in the municipal registers. The numbers may be overestimated, since the out-migration is not always registered.

Source: *SOPEMI*, OECD, 1983, 1988, 1989, tables B2.1, B3.1, and B4.1.

an estimated 1 million workers left between 1973 and 1978. (Lebon and Falchi mention a figure of 1.5 million, including workers from North Africa.) This reverse flow of workers was not always spontaneous. Many foreign workers did not look forward to returning to a country they had left because of poor economic conditions. Many measures were taken to encourage workers to return to their countries but none proved fully satisfactory.

France tried three methods:

- (1) a subsidy for returning,
- (2) professional training, and
- (3) aid for creation of enterprises.

Annual resulting returns are estimated at 75,000 between 1975 and 1982, and 40,000 from 1983 to 1986.⁴²

- Germany tried to facilitate returns, in particular to Turkey. It also subsidized immigrants returning to Yugoslavia in 1976.⁴³
- The REMPLD project in the Netherlands (1977) to resettle Yugoslavian workers in their own country, and the creation of co-operatives and banks by and for Turkish and Greek repatriates, are other examples of efforts to encourage workers to leave countries where they were no longer required.

These modest successes made people realize the considerable personal, social and economic implications – for countries sending and receiving immigrants – of migration organized too simplistically in the 20th century European environment. Germany's GESTARBEITERS especially highlight the mistaken belief that migratory movements among unspecialized workers result from simple calculations of economic advantages by individuals. This episode reveals that migratory movements tend to create ethnic communities, that organize migration networks which are not easily prohibited in the host country. France and England originated the formation of such networks by assimilating foreign populations to Western values during their long colonial regimes in Africa, the Caribbean, India and so on. Over the period studied, these networks have been used by foreign populations to settle in the traditional mother countries⁴⁴ (see study of the United Kingdom below).

Foreign Population

The tables created with SOPEMI statistics show that foreigners in European countries have not declined since the 1973 oil crisis. Entries and exits, controlled by a gamut of regulations adopted for each country, along with births, deaths and naturalizations, have even resulted in a small increase. The principal factor has been reunification of families. In 1989, Germany had 5 million foreigners; 33% were Turkish, 13% Yugoslavian and 11% Italian. There were 1,689,300 foreign workers.⁴⁵ Faced with the impossibility of sending back foreign workers and also with a certain amount of need for workers resulting from slight, scattered economic upturns, and faced with moral

⁴² G. Tapinos in "Pour une introduction au débat contemporain" in *La mosaïque en France – Histoire des étrangers et de l'immigration en France*, Larousse, 1988.

⁴³ Agreements between the countries of Bade-Wurtemberg and Croatia to train 50 Yugoslavian workers.

⁴⁴ Alejandro Portes, IMR, vol. 23.

⁴⁵ Hoilig, Gerhard, Thomas Büttner and Wolfgang Lutz, *Germany's Population: Turbulent Past, Uncertain Future*, Population Reference Bureau, Publication No. 45, December 1990.

obligations making extradition unacceptable, European countries have thus favoured reunification, been sensitive to requests for political exile and finally opted to integrate and possibly assimilate the foreign population.⁴⁶

Table 18. Foreign Residents and Migration Flows to the Netherlands
(in thousands)

Year	In-migrants ¹	Out-migrants ²	Net Migration	Number of Foreign Residents ³
1973	N/A	N/A	N/A	283
1974	N/A	N/A	N/A	315
1975	N/A	N/A	N/A	345
1976	N/A	N/A	N/A	363
1977	50	25	25	376
1978	56	24	32	400
1979	72	24	48	432
1980	80	24	56	473
1981	50	25	25	521
1982	41	28	13	547
1983	36	28	8	552
1984	37	27	10	559
1985	46	24	22	553
1986	53	24	29	568
1987	61	21	40	592
1988	58	21	37	624

N/A: Not available.

¹ These numbers correspond to the recorded number of foreign residents in municipal registers, including asylum seekers.

² These numbers correspond to departures of foreign residents, accounted for in municipal registers. The real flows are underestimated.

³ Number of persons recorded in municipal registers, as of 31 December of each year.

Source: *SOPEMI*, OCED; 1983, tables B2.3, B3.2, and B4.3; 1988 and 1989, tables B2.4, B3.3 and, B4.4.

Naturalization

Integration and assimilation are not, however, quite the same as naturalization. The data on European naturalization are not as adequate as those established for the United States and Canada. However, by reporting the annual naturalizations among the foreign population in the country, we obtain an indication of how easily these countries incorporate new arrivals. For 1988, for example, we have the following percentages: Norway, 2.5%; Sweden, 4.3%; Belgium, 0.2%; Netherlands, 1.5%; France 1.3%; Germany, 0.8%; Switzerland, 1.1%.

⁴⁶ By integration we mean allowing the foreign population to develop in the host country while respecting the foreign population's customs, way of life, language, and so on. Assimilation is a further step; the foreigner becomes a person of the country, adopts its language and culture, benefits from all its advantages and incurs all its duties.

Table 19. Foreign Residents and Migration Flows to Sweden
(in thousands)

Year	In-migrants ¹	Out-migrants ²	Net Migration	Number of Foreign Residents ³
1973	25	30	– 5	398
1974	32	20	12	401
1975	38	21	17	410
1976	40	19	21	418
1977	39	15	24	424
1978	32	16	16	424
1979	32	16	16	424
1980	34	21	13	422
1981	27	21	6	414
1982	26	20	6	406
1983	22	17	5	397
1984	26	15	11	391
1985	28	14	14	389
1986	34	15	19	391
1987	37	12	25	401
1988	45	12	33	421

¹ Number of new residence notifications (including asylum seekers) addressed to local authorities by foreigners. Certain citizens from Nordic countries, only planning a short stay, may not be accounted for.

² Number of foreigners who indicated to local authorities that they were terminating their residency in Sweden. Some foreigners, mainly from Nordic countries, may not be included in these counts. The out-migration may therefore be underestimated.

³ These numbers, for 31 December of each year, have been obtained through the notifications of residence, addressed to local authorities, by foreigners. Some citizens, mainly from Nordic countries, may not be included in these numbers, since the duration of their work permits is very short.

Source: *SOPEMI*, OECD; 1983 tables B2.4, B3.3, and B4.4; 1988 and 1989 tables B2.5, B3.4, and B4.5.

Even if not entirely accurate, such low figures show that European countries are not open and people do not become citizens in the same way as in the new world. In 1990, for example, a foreigner had to provide proof of legal residence in Germany for eight consecutive years before being eligible for German citizenship. On the other hand, a person arriving in Germany and giving proof of even distant German origin immediately obtained citizenship (see traditional immigration countries).

Table 20. Foreign Residents and Number of Immigrants to France
(in thousands)

Year	In-migrants ¹	Number of Foreign Residents
1973	N/A	3,873
1974	N/A	4,038
1975	N/A	4,106
1976	N/A	4,205
1977	67	4,237
1978	50	4,170
1979	49	4,124
1980	51	4,168
1981	95	4,224
1982	164	4,459
1983	87	N/A
1984	73	N/A
1985	71	3,752
1986	65	N/A
1987	67	N/A
1988	78	N/A

N/A: Not available.

¹ These numbers correspond to the new permanent foreign workers controlled by OMI, and to foreigners admitted for family reunion purposes, excluding residents from the EEC (workers and family) who have not been admitted by the OMI. These figures include asylum seekers.

Source: *SOPEMI*, OECD; 1983 tables B2.2 and B4.2; 1988 tables 3, B2.3, and B4.3; 1989 tables 1, B2.3, and B4.3.

Mediterranean Europe

During the 1960s, these countries experienced net emigration, and in the 1970s and early 1980s the emigrants returned. Now the Mediterranean peninsulas – Greece, Italy, Spain and even Portugal – are countries where people choose to come. Even though these countries are less attractive economically than countries in Western Europe, they interest people from North Africa, the Middle East, Eastern Europe and even from the Far East, precisely because Western European countries have a marked tendency to close their doors. In addition to these immigrants, South Americans of Mediterranean origin are returning to the countries of their ancestors. But in this sphere, as elsewhere, we must not take too simplistic a view. In fact, while people from North Africa are settling in Italy, Greece or Spain, others are leaving these countries to work in Libya, Algeria or the Middle East. Turkey sees as many people leave for Italy as for Iran.

Table 21. Foreign Residents and Migration Flows to Switzerland
(in thousands)

Year	In-migrants ¹	Out-migrants ²	Net Migration	Number of Foreign Residents ³
1973	90	73	17	1,051
1974	68	81	- 13	1,065
1975	54	121	- 67	1,013
1976	54	110	- 56	959
1977	55	84	- 29	933
1978	53	64	- 11	898
1979	57	56	1	884
1980	71	64	7	893
1981	80	64	16	910
1982	75	63	12	926
1983	58	62	- 4	926
1984	59	56	3	932
1985	59	54	5	940
1986	67	53	14	956
1987	72	54	18	979
1988	76	56	20	1,007

¹ Number of foreigners who obtained a year-long residence permit, including those who hold an establishment authorization (permanent permit) who entered Switzerland after a temporary stay in a foreign country. The numbers include holders of short-term permit holders, like trainees, who have the right to stay in Switzerland for a period of less than 12 months, but the permit is not renewable. Starting 1 January, 1983, holders of short-term permits valid for a period of less than 12 months are no more taken into account. Seasonal and border workers are not included.

² Number of foreigners holding a year-long authorization (including holders of short-term, non-renewable, residence permit, like trainees) and those who benefit from an establishment authorization (permanent permit) who left Switzerland. Since 1 January, 1983, holders of short-term permits valid for a period of less than 12 months are no more taken into account. These numbers include holders of an establishment authorization who went to another country for a temporary stay. Seasonal and border workers are not included.

³ Number of foreigners registered as of 31 December of each year, holding a year-long residence permit (including those holding a short-term residence permit, like trainees) and holders of an establishment authorization (permanent permit). Since 1 January, 1983, holders of short-term permits valid for a period of less than 12 months are no more taken into account. Seasonal and border workers are not included.

Source: *SOPEMI*, OECD; 1983 tables B2.5, B3.4 et B4.5; 1988 and 1989 tables B2.6, B3.5 and B4.6.

Figure 5

Net Migration and Number of Foreign Permanent Residents, 1973-1988 (in thousands)

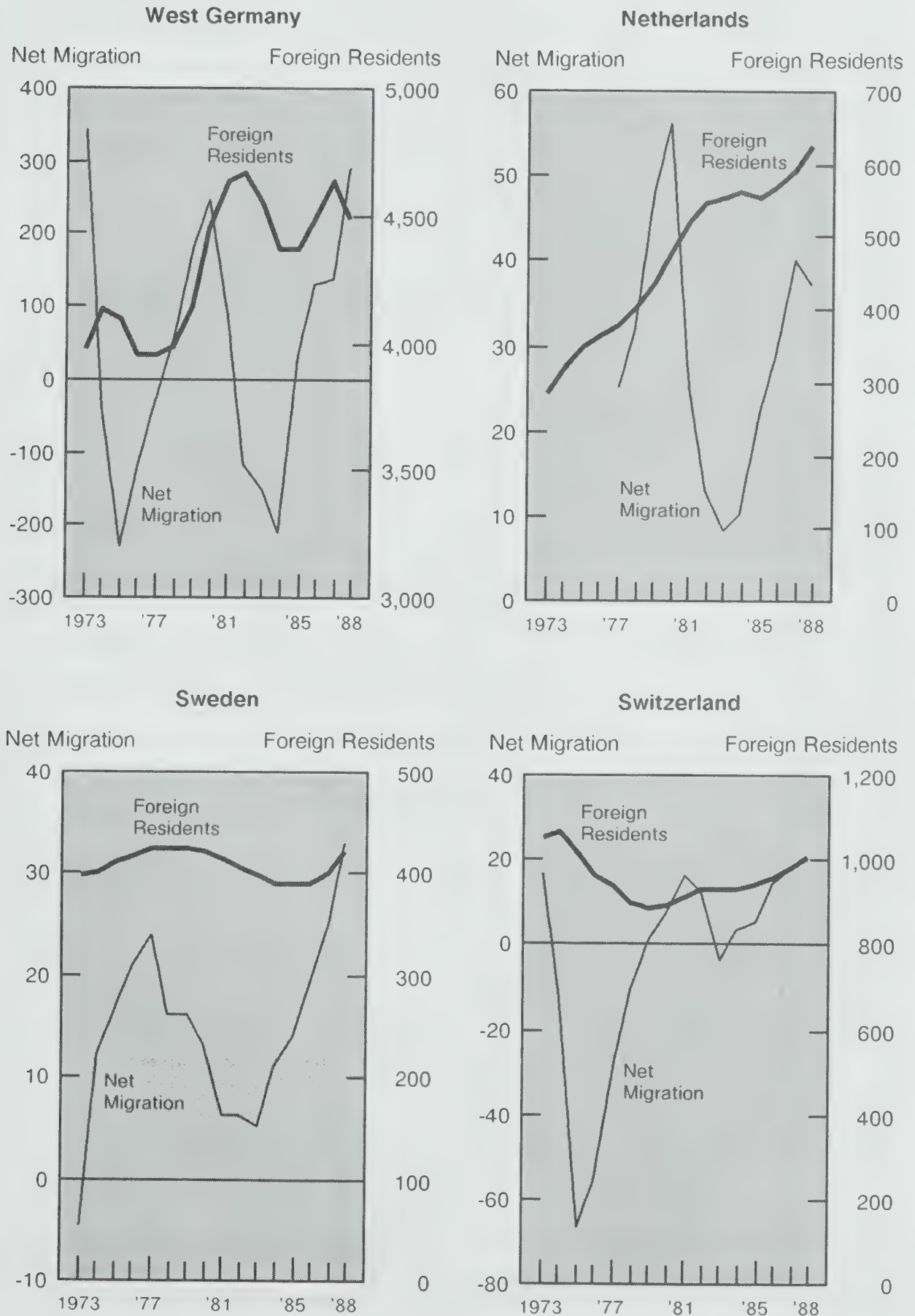


Table 22. Emigrants by Country of Origin and Country of Destination, 1950-1974 (in thousands)

Period	Origin: ITALY								
	Total Emigrants	Inter-continental Migration				Continental Migration			
		Total	Canada	United States	Latin America	Total	Federal Republic of Germany	France	Switzerland
1950-1954	1,246.5	677.6	93.4	63.0	406.9	568.9	1.4	172.0	277.7
1955-1959	1,507.3	564.0	124.1	124.3	198.9	943.3	58.7	380.0	366.2
1960-1964	1,672.7	265.8	75.5	69.3	42.8	1,406.9	488.5	178.8	647.3
1965-1969	1,206.3	290.2	105.0	97.4	15.5	916.1	315.1	77.8	448.3
1970-1974	697.2	151.1	27.1	64.1	17.3	546.2	215.8	38.5	245.7
Origin: PORTUGAL									
	Total Emigrants (except to former Portuguese territories)	Inter-continental Migration			Continental Migration				
		Total	Including Brazil	Total	Including France				
1950-1954	184.5	181.6	145.9	2.8	2.8				
1955-1959	165.5	145.9	91.5	19.6	18.9				
1960-1964	244.6	120.0	58.3	124.6	115.2				
1965-1969	541.0	133.8	15.0	407.2	352.8				
1970-1974	629.6	112.7	5.6	516.9	359.2				
Origin: GREECE ¹									
	Total Emigrants	Inter-continental Migration				Continental Migration			
		Total	Australia	Canada	United States	Total	West Germany		
1955-1959	143.8	102.6	32.8	21.0	24.1	40.0	8.0		
1960-1964	396.3	114.4	57.2	20.9	18.9	281.0	240.2		
1965-1969	389.2	146.2	59.4	27.0	49.3	241.8	215.4		
1970-1974	249.8	81.4	24.0	14.0	38.7	165.7	153.1		

¹ 1955-1974.

Source: *Trends and Characteristics of International Migration since 1950*, United Nations, Study No. 64.

Immigration to the United Kingdom

The United Kingdom, more so than France or Germany, has experienced profound change since World War II in its relations with the rest of Europe and especially with the countries of its huge former empire. Before making any attempt to summarize the history of migration to the United Kingdom since the war, it is important to remember:

- (1) Information collection, in spite of improvements since 1964, is still far from perfect in the United Kingdom. Figures published by the International Passenger Survey (IPS) provide only an estimate of immigrants, using the number of travellers as a base. In 1975, the IPS noted 17,861,700 passenger arrivals and 17,893,000 departures on monitored routes (mainly air routes). Of this total, only 117,200 arrivals and 172,100 departures were interviewed. Among them were 2,800 immigrants and 4,500 emigrants. Using these figures, it was concluded that 192,000 immigrated and 238,000 emigrated for the year.⁴⁷ (sic)

Movement figures published by the Home Office vary markedly from those of the IPS. For a long time, foreigners and members of the Commonwealth were counted separately, but they were not as strictly kept in both cases. The published figures are questionable. In 1975, the Home Office Secretary had to announce to the House that net migration for the New Commonwealth was not 17,000 as published, but 86,000!

- (2) For immigration, the United Kingdom has always concentrated on persons coming from the Empire (Old and New Commonwealth).
- (3) As in France, attitudes toward migratory movements have always been strongly political. Succeeding governments have always had opposing views on freedom or restriction of movement.

As each new country was admitted to the Commonwealth, the British began to emigrate there. An emigration committee after World War I provided free transportation for former military personnel and their families wanting to farm or who had an employment offer in one of these countries.⁴⁸ Only the Depression reversed British net migration for 10 years from negative to positive. Again, returning British citizens and not foreign immigration were the cause. But slowly, over the decades, fertility has dropped in the United Kingdom to the point where those entering the job market after World War II were not sufficient to fill the needs of industry. Europe obviously could not provide the necessary immigrants and Great Britain was worried about massive arrivals

⁴⁷ U.K. "Statistics on Immigration. Development and Limitations", David Coleman in IMR, vol. 21, 1987, No. 80.

⁴⁸ *Commonwealth Migration*, T.E.Smith, McMillan Press Ltd. 1981. ISBN 0-33-27898-4.

of foreigners, fearing integration problems. Emigration remained relatively high and the annual migratory balance was negative. That was the “brain drain” period. Aside from the United States, Australia attracted many immigrants by paying the costs of transportation (see note 31). From 1948 to 1962, the annual number of emigrants was about 42,000 to Australia. Canada accepted 30,000. A few tens of thousands chose New Zealand and a few more went to Rhodesia and South Africa. During this period, Great Britain took in Polish immigrants (95,000), prisoners of war who asked to remain (125,000) and 310,000 refugees from Eastern Europe, apart from the regular flow from Ireland.⁴⁹

The first immigrants from the new Commonwealth, the former colonies, began slowly to appear in 1948. The catalyst was that soldiers recruited in India, Pakistan, the Caribbean and West Africa became familiar with Great Britain during the war.

Colonists were not familiar with Great Britain. The few who went to Britain were members of a small elite and their stay was temporary – for study or training. Beginning in 1950, workers from the Caribbean entered the country by virtue of membership in the Commonwealth and the need for workers in the United Kingdom. After slowing down from 1956 to 1959, movement accelerated rapidly in 1960. In 1961 and 1962, entries from India and Pakistan became significant and the migratory potential of these countries overcame Great Britain’s qualms. Entry restraints to the former mother country were erected for these subjects of Her Majesty. Entry of West Indians, which had started the movement, did not provoke such restraints.

These restraints affected freedom. They authorized categories of immigrants:

- (1) persons who, on arrival, had a work contract from an employer;
- (2) persons with particular qualifications but no firm job (doctors, nurses, teachers);
- (3) persons who had served in the armed forces;
- (4) and finally, others at the discretion of the government. Obviously, immediate family members were admitted.

The 1961 Census in Britain indicated that 581,000 were born in one of the new Commonwealth countries (including some children of British nationals posted there) and only 110,000 from the old Commonwealth (Canada, Australia and New Zealand). Table 23 summarizes the situation, showing annual balances of migratory movements. Net migration figures indicate low immigration and maintenance of traditional emigration up to 1957. From 1958 to 1962, immigration increased from the new Commonwealth and then it slowed with the new 1962 Immigration Act.

⁴⁹ T.E.Smith, *Commonwealth Migration Flows and Policies*, McMillan Press, 1981.

“BRAIN DRAIN”

This term was first used in 1962 by the Belisle Royal Society, to characterize the departure of British engineers and scientists for the United States. Since then, the concept has been broadened, and refers to the selection process that generally occurs when the best trained members of developing countries migrate. Indeed, because of their skills, these members can easily satisfy the selection criteria of welcoming countries. This “brain drain” is a secondary effect of the aid given by industrialized countries to the Third World, especially in the fields of education and professional training.

Public opinion does not always condone this process¹. One can hastily judge that the “brain drain” deprives the underdeveloped countries of their elite, and curbs the development of non-industrialized countries, thereby increasing the differences between the industrialized and the non-industrialized worlds. However, in sustaining this thesis, one overlooks the fact that in certain countries, specialized human capital is scarcely used, or not used at all². Doctors, engineers, agronomists, and technicians cannot work to their full capacity because of a shortage of appropriate tools and infrastructure. Some might even be unemployed. It should also be acknowledged that by working in a developed country, these people contribute to a global welfare which indirectly benefits their country of origin. Those countries also benefit directly from the money transfers sent to family members.

Studies conducted by various economists showed that savings realized on opportunity costs reached \$1.718 million in the United States in the fiscal year 1971-1972. In Canada, between \$1 billion and \$2.4 billion were saved between 1967 and 1973.³

¹ Godfrey, Martin. *The outflow of trained personnel from developing countries.* E. CN.5/L.421, 12 nov. 1976.

² Johnson, Harry G. “An International model”, in W. Adams ed., *The Brain Drain*, New York, McMillan, 1968.

³ DeVoretz and Maki. “The size and distribution of human capital transfers from LDC to Canada, 1966-1973”, *Economic Development and Cultural Change*, 1980.

Each year, only three-quarters of Britain's entry visas were used. However, as they tended to be monopolized by persons from India and Pakistan, an amendment set a limit of 15% per country to avoid massive entries from the Indian sub-continent. The 1962 Act did not affect those holding British passports, so Asian Africans who had not become citizens of countries that had become independent, particularly Kenya, took advantage of this situation

Table 23. Net Migration to the United Kingdom, 1953-1964

Year	Net Migration
1953	- 74,000
1954	- 32,000
1955	- 10,000
1956	- 17,000
1957	- 72,000
1958	45,000
1959	44,000
1960	82,000
1961	170,000
1962	136,000
1963	10,000
1964	- 17,000

Source: Quoted in T.E. Smith, *Commonwealth Migration. Flows and Policies*, London, MacMillan Press, 1981.

to settle in Great Britain around 1967. The 1968 Act closed this loophole by placing Asians resident in Africa under the Immigration Act. In brief, the whole period from 1962 to 1971 was marked by a policy aimed at containing the migratory pressure placed on the United Kingdom by countries in the new Commonwealth. This policy had more than economic motives, since unemployment was not such that it could have inspired these severe restrictions on immigration. It also resulted from fear of assimilation of people of different colours and other cultures. In 1971, only 1.9% of the population of England and Wales⁵⁰ was born in one of the countries of the new Commonwealth – a million people. From 1964 to 1973, of all those arriving from the Commonwealth, 36% came from the new Commonwealth, 21 % from the old Commonwealth and 43% from South Africa.

In contrast with the other countries in Western Europe, immigration in this period did not prevent emigration, especially to countries of the old Commonwealth, the so-called white Commonwealth (Australia, Canada, New Zealand and, of course, South Africa). This emigration took place because the people of the United Kingdom still saw greater possibilities in these overseas countries than at home.

The United Kingdom and the Rest of the World

Because of many exchanges with its old and new Commonwealth, the United Kingdom has had little to do with Europe. All records indicate a low level of exchanges with Europe. Only a few thousand Italians, Greeks and Portuguese

⁵⁰ 2.1% of Great Britain.

Table 24. Migration to the United Kingdom by Place of Origin, 1968-1987 (in thousands)

Year	Status: Commonwealth Citizens					Status: Foreigners		Grand total (8) (1 + 6)
	All Regions (1) (4 + 5)	Old Commonwealth (2)	New Commonwealth (3)	Total Commonwealth (4) (2 + 3)	Outside Commonwealth (5)	Total (6)	Including EEC (7)	
						Immigrants		
1968	165	49	88	137	28.2	57	19	222
1969	146	45	72	117	28.9	60	19	206
1970	155	53	70	123	32.2	70	23	226
1971	145	52	65	117	28.3	54	14	200
1972	164	49	82	131	33.4	57	14	222
1973	127	49	50	99	28.4	68	17	196
1974	122	39	51	90	32.2	62	20	184
1975	138	43	58	101	37.3	59	11	197
1976	136	39	55	94	42.3	55	10	191
1977	113	35	40	75	37.5	50	9	163
1978	123	33	49	82	41.1	64	12	187
1979	135	31	59	90	45	60	13	195
1980	109	23	45	68	41	64	10	173
1981	100	19	46	65	35	53	12	153
1982	139	20	45	65	74	63	15	202
1983	140	30	53	83	57	62	11	202
1984	138	28	46	74	64	63	15	201
1985	157	30	47	77	80	75	20	232
1986	164	29	48	77	87	86	33	250
1987	146	32	40	72	74	66	22	212

Table 24. Migration to the United Kingdom by Place of Origin, 1968-1987 (in thousands) - Continued

Year	Status: Commonwealth Citizens				Status: Foreigners		Grand total (8) (1 + 6)	
	All Regions (1) (4 + 5)	Old Commonwealth (2)	New Commonwealth (3)	Total Commonwealth (4) (2 + 3)	Outside Commonwealth (5)	Total (6)		Including EEC (7)
Emigrants								
1968	240	130	39	169	70.9	38	13	278
1969	253	137	43	181	72.1	40	12	293
1970	248	125	44	170	78.1	43	13	291
1971	200	97	37	134	66.2	40	14	240
1972	195	89	44	133	62.3	38	13	233
1973	204	109	30	139	65.4	42	11	246
1974	228	127	29	156	72.7	41	10	269
1975	197	79	28	108	89.2	41	11	238
1976	166	63	27	90	75.6	45	14	211
1977	172	58	34	92	80.6	36	10	208
1978	152	48	26	74	78.1	41	11	193
1979	154	49	26	75	79	35	7	189
1980	181	64	34	98	83	48	16	229
1981	193	77	28	105	88	40	14	233
1982	219	74	37	111	108	40	7	259
1983	148	40	32	72	76	37	8	185
1984	126	29	28	57	69	38	5	164
1985	134	33	29	62	72	39	7	173
1986	163	49	26	75	88	50	9	213
1987	160	57	20	77	83	50	18	210

Table 24. Migration to the United Kingdom by Place of Origin, 1968-1987 (in thousands) - Concluded

Year	Status: Commonwealth Citizens					Status: Foreigners		Grand total (8) (1 + 6)
	All Regions (1) (4 + 5)	Old Commonwealth (2)	New Commonwealth (3)	Total Commonwealth (4) (2 + 3)	Outside Commonwealth (5)	Total (6)	Including EEC (7)	
						Net Migration		
1968	-75	-81	49	-33	-42.4	19	6	-56
1969	-107	-92	29	-63	-43.3	20	7	-87
1970	-93	-72	25	-47	-45.7	28	10	-65
1971	-55	-45	28	-17	-37.8	14	—	-40
1972	-31	-40	38	-3	-28.3	20	2	-11
1973	-77	-60	20	-40	-36.7	27	6	-50
1974	-106	-88	22	-66	-40.4	21	9	-85
1975	-59	-36	30	-7	-51.7	17	—	-41
1976	-29	-23	27	4	-33.2	10	-4	-19
1977	-60	-24	7	-17	-43.3	14	-1	-46
1978	-29	-15	24	9	-37.4	23	1	-5
1979	-19	-18	34	16	-35	25	6	6
1980	-71	-42	12	-30	-41	16	-6	-55
1981	-93	-57	16	-41	-52	13	-2	-80
1982	-81	-53	7	-46	-35	23	8	-58
1983	-8	-9	21	12	-20	25	3	17
1984	12	-1	18	17	-5	25	10	37
1985	23	-1	17	16	7	36	13	59
1986	1	-20	22	2	-1	36	23	37
1987	-14	-26	21	-5	-9	16	4	2

Source: Central Statistical Office, *Annual Abstracts of Statistics*, 1982 (catalogue No. 118) et 1989 (Catalogue No. 125).

travelled to find work in the United Kingdom. Similarly, emigration from England to Western and Northern European countries was not significant at any time. If we believe the Home Office, the countries of the EEC sent about 318,000 persons from 1968 to 1987 and 223,000 left the United Kingdom for one of these countries. Net migration was thus about 95,000, or 5,000 per year. These movements are scarcely more significant than those for the same period for the United States – about 239,000 persons immigrated from and some 217,000 emigrated to the U.S., for a balance of 22,000. Compare figures with movements to the old Commonwealth (730,000 immigrants, 1,532,000 emigrants) or the new Commonwealth (1,109,000 immigrants, 646,000 emigrants).

The 1981 Census in Britain, showed the number of foreign-born at 3.4 million – 6.3% of the total population. The foreign-born percentage was similar in Germany (7.4%) but much lower than in France (11%), where persons born in former colonies were also counted as foreign-born. When we consider the foreign-born from countries outside the British Empire – 1,086,277, only 2% of the British population – the figure is far lower than Canada's 16%. This figure of a million foreigners was reached with an addition of only 282,000 in 20 years, an average rate of 14,000 a year.

Table 25. Population of Great Britain by Place of Birth, 1961, 1971, and 1981

	1961		1971		1981	
	Number	%	Number	%	Number	%
Total Population	51,283,892	100.0	53,978,540	100.0	53,556,911	100.0
Born in United Kingdom	49,626,734	96.8	50,669,780	93.9	50,197,086	93.7
Born in the Old Commonwealth	110,329	0.2	142,825	0.3	152,747	0.3
Including:						
– Canada	56,611	0.1	64,665	0.1	62,051	0.1
– Australia, New Zealand	53,718	0.1	78,155	0.2	90,696	0.2
Born in the New Commonwealth	581,424	1.1	1,151,090	2.2	1,325,175	2.6
Including:						
– Africa	85,806	0.2	164,205	0.3	267,252	0.5
– America	173,659	0.3	304,070	0.6	295,179	0.6
– Asia, Oceania	286,322	0.6	638,285	1.2	875,801	1.7
– Europe	34,678	0.1	44,350	0.1	45,293	0.1
Others	965,405	1.9	2,014,845	3.6	1,881,903	3.4

Source: Great Britain Censuses of 1961, 1971, and 1981.

In 1981, Europeans accounted for only 430,400 of these foreigners, or 40%. Their numbers had also been declining since 1971, when the census counted 632,700 out of 980,000 or 65%. Even these low figures reveal the tendency of Mediterranean Europeans to return to their countries. Italians numbered 109,000 in 1971, and only 39,000 in 1981.

Among the other foreigners are small German and U.S. minorities, but the Irish community is largest with 607,428 persons, or 56%.

The European Equation at the Turn of the Century

It is well-known that in 1993, the countries of the European Economic Community (EEC), more numerous now than at its start, will be further united after a long process that was initiated after World War II. However, this community will remain very heterogeneous as to demographic and economic potential. The member countries are already very different in population composition and observers foresee many problems with population movement.

- *Internal mobility of legal foreigners* does not seem to be a concern. It will no doubt be low, since the population is already aging and consequently less mobile. Moreover, it is substantially made up of unqualified workers who are less in demand everywhere and who have already adapted to the societies in which they live.
- *Mobility of outlying zones of the EEC to the centre.* The heart of the EEC is far ahead in economic dynamism (France, Germany, Benelux, United Kingdom, to which should be added Switzerland) in comparison with the periphery (Greece, Spain, Portugal, Ireland) and there is a risk of significant centripetal movement. However, we must take into account climatic advantages that can become decisive in a world increasingly free (through new technology) of the bonds that energy sources and basic materials have represented throughout the century. For the moment, the central EEC countries are on the way to experiencing shortages of specialized workers that will doubtless become increasingly significant.⁵¹
- *Entry into the EEC by persons from outside who are now illegal.* If present conditions remain unchanged, the appeal of a black market in jobs will be strong. The existence of immigrant settlements in EEC countries will facilitate clandestine flows. These flows will certainly be more difficult to control than in North America, especially Canada, because of the lack of natural borders in the EEC.

Unexpected elements will certainly affect the course of events, but existing realities cause concern, too. The demographic potential of neighbouring countries is one such reality. In 2000, the Maghreb will have a population of 72 million. Turkey will have 65 million. In 10 years, these two entities will have an increase of 11 million workers.⁵²

⁵¹ INSEE. *Horizon 2000*. France will need 142,000 immigrant workers per year between 2000 and 2009; 148,000 during the following decade and 180,000 thereafter if the fertility rate remains at 1.8. At 1.5, they will have to consider 315,000 workers per year.

⁵² Gildas Simon, editor of *Revue européenne des migrations européennes* in “Social Europe 3/90”. Commission of the European Communities.

Conclusion

European migrations have gone through several phases:

- From the end of the World War II to 1973, an appeal for workers from Western and Northern Europe resulted in heavy immigration from Mediterranean Europe;
- From 1973 to the end of the decade, a mainly ineffective attempt was made to return immigrants who were no longer useful and were a burden on a stalled economy;
- The 1980s, especially the second half, were marked by huge numbers of requests for asylum, particularly by persons from Eastern countries. Throughout this decade, Mediterranean Europe became a place that attracted immigrants from countries in the Maghreb, the South Sahara, the Middle East and Eastern Europe and at the same time admitted some of their own citizens coming home after their European venture.

The current situation – the EEC integration and the foundering of the socialist economy – is particularly disturbing. Some fear a flood of persons moving from Eastern to Western Europe. The countries in the “Southern” bloc fear a unified Europe in a defensive posture, reinforcing its barriers against immigrants. They also see investments in the sinking socialist economy as a reduction in the amounts that they could have expected to increase development and reduce pressure for emigration.

But a reassuring element remains – the aging of the European population, which will increasingly deteriorate its demographic balance. In the near future, demand for qualified workers, and especially for workers in the services field, could end reluctance to renewed immigration. This renewed immigration is already deemed necessary by demographic and statistical agencies, and by the industrialists dealing directly with production.

THE MIDDLE EAST

Recent political developments may alter traditional population movement in the Middle East. However, it is doubtful that predominant trends can be reversed, even after the significant political and military events that have occurred. Economic forces are generally stronger and more persistent.

Since ancient times, the Middle East has been a crossroads to and from the Mediterranean world (of which it was born) and Asia. The holy cities of the Judeo-Christian and Muslim worlds are in this region. Alexander the Great passed through the Middle East on his trek to India encountering difficulties

Figure 6.
Recent Immigration Flows to the Middle East



This map summarizes graphically the major migratory flows; it is not an exhaustive description.

coming home – on “the march of the 10,000” as described in Xenophon’s, *Anabasis* – similar to those the Kurds have recently experienced in their wanderings. But the wealth of the Middle East is no longer symbolized by the splendour of Babylon nor the magnificence of the cedars of Lebanon, but rather by Persian Gulf oil.

All Middle Eastern countries except Israel have Third World characteristics – high fertility, high illiteracy, women playing a small economic role, etc. At present, this world is divided into two distinct groups of Arab countries; one group oil-rich, the other not. Oil is not a recent discovery: it was known in ancient times and has been commercially developed since early in this century, particularly since 1930. This was especially true in Iran where until recently, Abadan was the world’s largest refinery and in Iraq, where the Mosal region has been known for its black gold for at least as long as Romania and the Caucasus.

After World War II, demand for oil increased exponentially. The United States, until then the primary world supplier, was unable to satisfy this demand and was obliged gradually to move the “Red Line” west and even to import a great deal from the second Gulf,⁵³ by then clearly producing the most oil.

After centuries of turbulent history, the economic development produced by sudden fabulous wealth in the oil-producing countries set off very complicated migratory movements. In the following paragraphs, the description of present circumstances has, of necessity, been painfully simplified. The reader must also keep in mind that in this summary overview we are dealing with facts rather than explanations.

Every country in the world may have a certain amount of interest in the Middle East’s economy. With regard to demographics and population movements, on the one hand we have the countries seeking workers: Saudi Arabia, Iraq, Kuwait, Bahrein, Qatar, the Arab Emirates, and Oman. On the other hand are the neighbours without oil resources: Egypt, Lebanon, Jordan, Syria, North and South Yemen and the Palestinian people, and more distant countries such as Sudan and Morocco, and even the countries of South and South East Asia.

Briefly, the history of international migration shows that as soon as producing countries become wealthy from the oil trade, they attract immigrants, first from the neighbouring Arab states. Policies concerning these immigrants have fluctuated from *laissez-faire* to more restrictive according to economic and also political conditions. Although indeed the borders of some of these

⁵³ Until the War, when people spoke of the Gulf in the oil world they meant the Gulf of Mexico where world price was fixed (Gulf plus) and The Red Line, running more or less North-South, defined on the map the countries that paid Gulf of Mexico price and those that paid Raz Tanura price.

countries have been drawn recently, their peoples are rooted in very ancient histories of both friendship and hostility between these of the same race and religion. A common feature of all wealthy countries is to have small populations, often much smaller before oil development. As a result they have a great need for workers to develop their assets or to transform their wealth into goods and services, and a fear that their national, religious, and ethnic integrity will be threatened by sudden large influxes of immigrants. Kuwait presents a good example of the prevailing situation in other similar countries.

Table 26. Population of Kuwait from various Censuses

Year	Origin	Males	Females	Total	% of Total	% Intercensal Growth	Annual Growth
1957	Kuwait	59,154	54,468	113,622	55.03	-	-
	Other	72,904	19,947	92,851	44.97	-	-
	Total	132,058	74,415	206,473	100.00	-	-
1961	Kuwait	84,461	77,448	161,909	50.34	42.50	9.26
	Other	116,246	43,466	159,712	49.66	72.00	14.52
	Total	200,707	120,914	321,621	100.00	55.77	11.72
1965	Kuwait	112,569	107,490	220,059	47.08	35.91	7.97
	Other	173,743	73,537	247,280	52.91	54.83	11.55
	Total	286,312	181,027	467,339	100.00	45.30	9.79
1970	Kuwait	175,513	171,883	347,396	47.03	57.86	9.56
	Other	244,368	146,898	391,266	52.97	58.23	9.61
	Total	419,881	318,781	738,662	100.00	58.06	9.59
1975	Kuwait	236,600	235,488	472,088	47.25	35.98	6.32
	Other	307,168	215,581	522,749	52.55	33.60	5.96
	Total	543,768	451,063	994,831	100.00	34.68	6.14
1980	Kuwait	280,649	284,964	565,613	41.65	19.81	3.68
	Other	495,990	296,349	792,339	58.35	51.57	8.67
	Total	776,639	581,313	1,357,952	100.00	36.50	6.42
1985	Kuwait	338,796	342,492	681,288	40.14	20.44	3.79
	Other	626,501	389,512	1,016,013	59.86	28.23	5.10
	Total	965,297	732,004	1,697,301	100.00	24.99	4.56

Source: 1957-1980: *Population Figures from Kuwait Facts and Figures*, Ministry of Information, 1984; 1985: State of Kuwait, *Annual Statistical Abstract 1987*, p. 25. Table 9; percentages calculated by the author. I.M.R. Vol. 23, 1989 by Sharon Stanton Russell. *Politics and Ideologies in Migration Policies Formation: The Case of Kuwait*.

From 1957 to 1985, Kuwait's population increased from 206,473 (Table 26) to 1,697,301, an average annual increase of 7.8%. No country achieves this kind of demographic growth without a great deal of immigration. It is difficult to determine net migration, but the gross increase in non-Kuwaiti population between those two dates - 8.9% per year - gives some idea of the numbers

Table 27. Placing of Workers Under Contract to Middle East Countries by Specific Asian Countries, 1976-1986

Country	1976	1980	1983	1984	1985	1986
India	4,200	236,200	220,797	198,810	160,555	109,951
Philippines	7,812	132,044	323,414	311,517	266,617	262,758
Pakistan	41,690	129,847	128,206	88,460	101,000	62,000
Korea	21,269	124,834	140,100	116,050	N/A	N/A
Bangladesh	5,559	29,815	59,220	56,753	77,694	36,852
Sri Lanka	526	24,053	68,905	N/A	N/A	N/A
Thailand	1,287	20,690	63,520	67,468	61,083	72,673
Indonesia	1,200	4,950	N/A	36,582	45,129	N/A

N/A: Not available.

Source: Ministry of Labour, New Delhi; *Philippine Overseas Employment Administration*, Manila; ARTEP, *Impact of Out and Return Migration on Domestic Employment in Pakistan*; Hyunho Deok, Republic of Korea, in G. Gunatilleke, *Migration of Asian Workers to the Middle East*; A.M. Siddiqui, *The Economic and Non-Economic Impact of Labour Migration from Bangladesh* in F. Arnold and N. Shah, *Asian Labour Migration*; Central Bank of the Philippines; *Protector of Emigrants, Bombay*; Ministry of Planning, Colombo, *BMET Annual Reports*, Dkaka; Office of Labour Administration, Seoul; Department of Labour, Bangkok; National Economic and Social Development Board, Bangkok; Department of Manpower, Jakarta.

In J.S. Birks, I.J.. Seccombe et C.A. Sinclair, "Labour Migration in the Arab Gulf States, Patterns, Trends and Prospects", *International Migration* vol. XXVI, no. 3, 1988.

entering the country.⁵⁴ Bringing together these figures reveals two things: a large number of immigrants and the country's reluctance to assimilate them, despite periods when efforts were made at what was called Kuwaitization,⁵⁵ (as there had been efforts at Saudization, Bahreinization and so on). These initiatives were more bookkeeping operations than true assimilation. Countries proceeded with naturalization at that time to keep the percentage of foreigners rather low. But these efforts did not last long.

For many reasons, at the same time as these countries were taking people in from the neighbouring Arab world, they sought out Asian workers (Table 27), especially recently. It was put forward that Asian workers were more efficient, that Arab immigrants were more interested in commerce, services and administration, and were, on average, less efficient in construction and manufacturing jobs. In addition, Asians were paid lower salaries, and because they were recruited by international agencies (the Korean system), presented less risk of remaining in the country.

⁵⁴ Increase in Kuwaiti population between the two dates is due not only to natural growth, but also to naturalizations and to offspring of the entire population.

⁵⁵ 90,000 in Kuwait between 1961 and 1970, in *Politics and Ideology in Migration Policy Formulation: the case of Koweit*. S.S.Russel, IMR, vol. 23, 1989, p. 35.

Table 28. GCC: Foreign Manpower by Nationality Group and Country of Employment, 1985¹

Nationality Group	Employed in						
	Bahrain	Kuwait	Oman	Qatar	Saudi Arabia	United Arab Emirates	Total
Arabia	7,600	252,900	20,900	16,400	1,154,200	95,500	1,547,500
Southern Asia	70,900	242,700	280,800	46,200	1,126,300	447,700	2,214,600
South-East Asia	10,700	31,200	4,600	4,000	968,400	25,000	1,043,900
Other	7,700	17,100	7,800	4,100	273,800	30,300	340,800
Total	96,900	543,900	314,100	70,700	3,522,700	598,500	5,146,800

¹ GCC: Gulf Cooperation Council.

Source: State of Bahrain, Central Statistical Organizations, *Statistical Abstract*; State of Bahrain, Ministry of Labour and Social Affairs, *Annual Report on Foreign Employment*, 1984; State of Kuwait, Central Statistical Office, *Annual Statistical Abstract*, 1986; State of Kuwait, Ministry of Labour and Social Affairs, *Annual Report on Expatriate Employment*, 1985; Sultanate of Oman, Directorate General of National Statistics, *Statistical Yearbook*, 1986; State of Qatar, Central Statistical Organisation *Annual Statistical Abstract*, 1986; State of Qatar, Central Statistical Organizations, Kingdom of Saudi Arabia, Central Department of Statistics, *Statistical Yearbook*, 1984; *Saudi Economic Survey* (Weekly); UAE, Central Statistical Department, *Annual Statistical Abstract*, 1984; Emirate of Abu Dhabi, Department of Planning, *Statistical Yearbook*, 1985.

In: Birks, J.S., I.J. Seccombe and C. Sinclair, 1988. "Labour Migration in the Arab Gulf States. Patterns, Trends and Prospects", *Migrations Internationales*, Quaterly Review of Inter-governmental Committee on Migration, 3 September: 274.

The immigrant population in Gulf countries is mainly, but not exclusively, workers. In 1985, non-nationals represented 71% of workers in Saudi Arabia, 81% in Kuwait and Qatar and 91% in the Arab Emirates. Of these 5.1 million workers, 63% came from Asia (43% from South Asia and 20% from South East Asia). Arabs made up 30% of non-national workers.

It would be erroneous to see non-nationals involved only in construction, manufacture and commerce. The greatest number, almost 30%, are employed in services and some work in agriculture and fishing. Surprisingly, only 1.1% work in mining and the petroleum industry where, however, they make up 55% of the workforce (Table 28).

Despite very strict entry control and very stringent laws limiting opportunities for settling in the country of entry, governments know that there are illegal immigrants. Many are extradited, but some, especially Arab workers, succeed in settling. The wages they earn are much higher than if they returned to their own countries, outweighing the risks of extradition.⁵⁶

⁵⁶ J.S. Birks, J. Seecombe, and A. Sinclair, "Labour Migration in the Arab Gulf States: Patterns, Trends and Prospects", in *Migrations Internationales*, vol. XXVI, no. 3, 1988.

REMITTANCES

One aspect of migration, well-known to specialists but less so to the general public, is the economic benefits of temporary migration to emigration countries. When the migrants are mainly workers, there is a beneficial easing of pressure on their job market. But if all or part of their families remain in the emigration country, the expatriate workers will send home part of their earnings. Money is thus injected into the emigration country's economy. The real benefit in the short or long term for the emigration country is a controversial topic. Some claim that these injections of money have had only limited benefit because they were used to buy consumer goods manufactured in the immigration countries and therefore the money was very quickly returned to the immigration countries. These inputs may also have had an inflationary effect on prices of land and durable goods. Others have replied that over the long term, part of these money injections were actually used to start new businesses in the emigration countries. Finally, some countries, such as Asian countries dealing with Arab countries, use placement agencies to deal directly with countries needing workers. In this case, sums are deducted from the workers' earnings and injected into their countries' economies.

This source of funds is of prime importance to many countries. The amounts are unknown because we cannot account for unofficial sums of money or for non-monetary things such as objects, services and so on. In its 1984 report, the World Bank gave figures of \$3 billion in 1970 and \$27 billion in 1980, which indicate the growing importance of this aspect of international migration to world economic development. Countries such as Egypt and the countries in the Ma'ghreb, to name only a few, depend greatly on this revenue for survival. Institutions like the

In fact, these countries during the short recent period have had to change their population policies several times to reconcile continually the ideologies and diverse interests of certain powerful segments of their elite, and to come to terms with a reality their leaders have difficulty controlling.

For example, the basic laws in Kuwait, enacted in the early 1960s (a foreign residents act in 1959, a nationality act in 1959, a labour act in 1964, a commercial companies act in 1960 and Act 1 in 1962, creating the Ministry of the Interior), bear witness to the contradictory objectives to be reconciled in immigration:

World Monetary Fund, the Asian Development Bank, the Habib Bank of Pakistan and authors such as Kim, Korale Stahl, Abella, Arnold and Shah have given dollar amounts for the funds received and the significance of these funds in the national economies.

Thus, Pakistan received \$2.81 billion dollars in 1983, which paid for 50.3% of its imports. This sum almost equalled total revenues from exports (97.7%). It was 11% of the GNP and more than twice what the country received in international aid (209.4%).

<i>Country</i>	<i>Values in US\$</i>	<i>% of exports</i>	<i>% of imports</i>	<i>of GNP</i>	<i>% of foreign aid</i>
<i>Bangladesh (1983)</i>	<i>610</i>	<i>84.2</i>	<i>28.2</i>	<i>5.6</i>	<i>42.2</i>
<i>India (1980)</i>	<i>1,600</i>	<i>19.3</i>	<i>11.5</i>	<i>1.3</i>	<i>56.7</i>
<i>Pakistan (1984)</i>	<i>2,405</i>	<i>91.4</i>	<i>37.3</i>	<i>8.6</i>	<i>N/A</i>
<i>Philippines (1983)</i>	<i>955</i>	<i>19.1</i>	<i>12.8</i>	<i>3.6</i>	<i>178.2</i>
<i>South Korea (1982)</i>	<i>1,538</i>	<i>7.0</i>	<i>6.3</i>	<i>2.3</i>	<i>2,050.7</i>
<i>Sri Lanka (1984)</i>	<i>301</i>	<i>20.6</i>	<i>15.6</i>	<i>5.1</i>	<i>N/A</i>
<i>Portugal (1989)</i>	<i>3,581</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>
<i>Italy (1988)</i>	<i>2,755</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>

N/A: not available

- to ensure economic growth through allowing free immigration;
- to allow the reigning family to control the entry, movements and rights of foreigners through systems of documentation and permits;
- to reinforce the traditional policy of reciprocity with the other Arab states; and
- to arrange measures that give special privileges to the elite in the commercial sector.

All of this resulted in a "differentiation strategy", that distinguishes between non-Kuwaitis and Kuwaitis. The government would have to provide only its citizens with certain advantages. Thus, Kuwait went through a period when the annual number of naturalizations was set at 50.⁵⁷ Only Arabs who had lived in Kuwait for eight years after the 1959 Act was passed could apply. When the laws were relaxed, 90,000 persons (some say 200,000) were naturalized between 1961 and 1971 (Kuwaitization). But the 1980 Census reveals a surprising demographic portrait of the country. From 1975 to 1980, the Kuwaiti portion of the population fell from 47% to 41.5%. The Asian segment increased from 9.8% to 15% and made up 26% of the non-Kuwaiti population. Close to a third of the non-Kuwaiti population had been in the country for 10 or more years, 16% for more than 15 years.

Other oil-rich countries have had similar experiences. In short, a great deal of movement has made the Middle East a very demographically active region. The situation where workers come and go as needed is reminiscent of Europe's "guest workers" in the 1960s, especially in Germany. It was demonstrated that contrary to what was expected, the program resulted in demographic growth and changed socio-economic balances. It is likely these countries will choose to control entries more strictly in future.

However, some think an overly restrictive immigration policy could have harmful consequences, namely an increase in wages that would reduce governments' profits and their investment capacity. On the other hand, as previously seen, it would be mistaken and naive to imagine that immigration in these countries is simply a movement of interchangeable unskilled labourers. A significant number of non-nationals are well-integrated into their host populations⁵⁸ (Table 29). Many are public servants, doctors, high-level technicians, and business people who have become indispensable. Experts say that, among other future possibilities, temporary immigration, for longer or shorter periods, will continue to be important. It allows countries that lack capital, but which have large numbers of workers, to benefit from the wealth of the oil countries because money paid to expatriates comes back into their countries of origin. Others think that the wealthy countries will be more open to permanent immigrants. This would offer a stable market for the surplus skilled population trained in the capital-poor Arab countries and in Asia.

⁵⁷ "Politics and Ideology in Migration Policy Formulation: the case of Kuwait", Sharon Stanton Russell in IMR, Vol. 2, 1989.

⁵⁸ Russell, S.S., 1987. "Migration and Political Integration in the Arab World" in *The Politics of Arab Integration*. Edited by Luciani and Salame. London: Croom Helm and Beirut: Center for Arab Unity Studies (forthcoming).

Oil prices dropped significantly in the second half of the 1980s. The Gulf countries cut back on expenditures and consequently engaged fewer foreign workers. However, over the long-term, changes observed in the last few years may continue: that is, requirements for non-specialized workers will decrease proportionally while the demand for specialized workers will increase as services and industries develop. These countries will no doubt require engineers, doctors and other professionals, both for their own immediate needs and to form a professional elite.

Table 29. GCC: Foreign Manpower by Work Domain, 1985¹

Economic Sector	Bahrain	Kuwait	Oman	Qatar ²	Saudi Arabia	United Arab Emirates	Total	%
Agriculture and Fishing	1,150	9,800	11,000	4,450	394,550	32,300	453,250	8.8
Mining and Quarry Excavation (Petroleum)	750	4,350	3,750	-	35,200	11,900	55,950	1.1
Manufacture	6,900	46,800	7,200	10,850	359,300	53,250	484,300	9.4
Public Services	1,400	6,000	1,250	1,050	144,450	10,800	164,950	3.2
Construction	31,500	123,450	148,600	15,700	1,021,600	128,700	1,469,550	28.6
Commerce	15,200	70,700	65,000	13,300	468,500	89,200	721,900	14.0
Transport and Communications	7,950	29,900	2,500	6,300	176,150	48,500	271,300	5.3
Financial Services	900	16,850	5,050	3,400	63,400	16,150	105,750	2.0
Other Services	31,000	236,050	69,750	15,500	859,550	207,700	1,419,550	27.6
Total	96,750	543,900	314,100	70,550	3,522,700	598,500	5,146,500	100.0

¹ GCC: Gulf Cooperation Council.

² Jobs in Mining and Quarry Excavation Petroleum- in Qatar are included in the manufacturing sector.

Source: State of Bahrain, Central Statistical Organizations, *Statistical Abstract*; State of Bahrain, Ministry of Labour and Social Affairs, *Annual Report on Foreign Employment*, 1984; State of Kuwait, Central Statistical Office, *Annual Statistical Abstract*, 1986; State of Kuwait, Ministry of Labour and Social Affairs, *Annual Report on Expatriate Employment*, 1985; Sultanate of Oman, Directorate General of National Statistics, *Statistical Yearbook*, 1986; State of Qatar, Central Statistical Organisation *Annual Statistical Abstract*, 1986; State of Qatar, Central Statistical Organizations, Kingdom of Saudi Arabia, Central Department of Statistics, *Statistical Yearbook*, 1984; *Saudi Economic Survey* (weekly); UAE, Central Statistical Department, *Annual Statistical Abstract*, 1984; Emirate of Abu Dhabi, Department of Planning, *Statistical Yearbook*, 1985.

In: Birks, J.S., I.J. Seccombe et C. Sinclair, 1988 *op. cit.*: 275.

It is reasonable to believe that profound changes will occur in the Middle East's economic role. After being on the sidelines of the industrialized world, now almost the entire world is paying hard cash in exchange for its underground oil riches. But things may not stop there. It may also become an industrial and manufacturing region. Given the importance of their oil energy and their capital, these countries are thinking of developing export industries.

SOUTH AMERICA

Latin America and South America are not synonymous. South America, which makes up the largest part of Latin America, is the area we shall deal with in the following pages.

The South-American sub-continent was conquered almost at the same time as North America. Thoroughly explored and conquered by the Spanish and the Portuguese, at first it seemed to have potential comparable to North America and even, because of long-standing demand for tropical products, some advantages. But the recent observations are that after a time of relative success, the tide has turned increasingly in disfavour of those large countries – Argentina, Brazil and Venezuela.

According to the latest census figures, the foreign-born population is small. Only in Argentina and Venezuela are the proportions similar to those in the United States, 6.6% and 6.8%. Brazil, with less than 1%, appears to lack any immigration. Within these low percentages, the segment of non-Latin American is generally large. This leads us to believe either that there is very little internal movement in South America or that it is not well-documented, even though we know Bolivia has been weakened by emigration to Argentina.

ARGENTINA

Very early in its history, Argentina understood the need for a sizeable population. In the early 19th century, Rivadavia made the first official pronouncements on the matter, which unfortunately, civil wars in the following decades rendered ineffective. The Rosas government left commerce to the Italians, at the same time ceding territory to the Irish for settlement and sheep ranching. But these decisions did not cause notable migration. Alberdi, whose motto was “populate to govern”, was the champion of immigration.

The United States’ model was followed. Immigrants were to come from Northern Europe because that was where the industrial revolution began. However, it was only in the 1880s that Argentina began to attract immigrants, and not from Northern Europe but from the Mediterranean, particularly Italy. This continued until World War I. The crisis that rocked Italy at the time of its unification under Cavour increased the already substantial emigration. Another reason for this immigration was that world demand for grain was strong and Argentina had the necessary land but lacked workers. The Argentinean countryside was thus populated with many immigrants from Italy and Spain. However, as in Canada and the United States, industrialization brought about urbanization and an exodus from the rural areas. Buenos Aires was almost the only urban area that experienced growth, with the result that a third of the Argentinean population is centred in the capital.

While "European" immigration represented a higher percentage of immigration than from other countries in South America, the latter should not be minimized. It has been going on for a long time: many Uruguayans living in Argentina were in fact Europeans migrating for a second time, often for political reasons.

South Americans migrated to Argentina for jobs. Agricultural production other than grain and livestock always requires rural labourers, and the native population was leaving the country for the city. Jobs on cane, maté and fruit plantations were filled by immigrants from neighbouring countries. However, the size of this job market and the size of the countries in question, much smaller than Italy and Spain, have meant that this immigration flow has remained small.

But since the 1960s, Argentina has become a country of emigration. It must be said that, more so than other countries, Argentina has experienced a great deal of movement, even in transatlantic migrations. For example, while there has been a significant inflow of Italians, many have also returned to Italy. Balan⁵⁹ estimates that the migratory balance over the long-term has never represented more than half the number of entries. Because of these movements, Italians were called "swallows": they appeared in both countries (Italy and Argentina) at harvest time and disappeared in winter. Quite another phenomenon, chronic emigration, has appeared in recent years. Unfortunately, very little information exists in this area. In such cases we must turn to estimates by experts. First seen as a "brain drain", the number of Argentineans leaving for more prosperous countries was relatively low. But since 1975, Argentina has gone through serious recessions affecting its job market. It has been suggested that 35% of industrial jobs disappeared between 1975 and 1981. This greatly increased emigration of skilled or semi-skilled workers. In addition to this movement is the more-or-less forced exile of persons disagreeing with the government.

CHILE

With a foreign-born population of 85,000 persons, 0.7% of its population in the 1982 Census, Chile is definitely not a country of immigrants. On the contrary, many Chileans are leaving for Argentina, and particularly the southern provinces at the time of the rural exodus. They are also leaving for the industrialized countries of the Northern hemisphere and, more recently, for Venezuela. Those who migrated to Argentina were untrained workers who lived near the border, mostly miners or agricultural workers, while those who moved to industrialized countries were from the educated class, mainly professionals and skilled workers. Again, no accurate figures can be stated.

⁵⁹ Jorge Balan. *International Migration in the Southern Cone*. Centro de estudios des Estado y Sociedad, Buenos Aires, Argentina, 1985.

BOLIVIA AND PARAGUAY

Bolivia and Paraguay are two small countries with 7 and 4 million inhabitants respectively. They have experienced devastating wars and their population growth and development have suffered. While there is movement toward the capital city in each country, these societies remain essentially rural. Consequently, there are only cross-border migrations to respond to needs for agricultural workers in Argentina. However, Paraguay's migration may have been more to urban areas.

BRAZIL

By far the most populous country in South America is Brazil. Persons born abroad accounted for only 1,110,000 in its 1980 Census, less than 1% of its 121 million population. There is very little information on these people. Close to a quarter of those born abroad are Portuguese, as might be expected, but the second largest group is Japanese, followed by Italians and Spaniards. There are few cross-border immigrants. Considering only the numbers involved, we can see that the present situation is quite different from the past – the days of sugar, coffee and rubber, each attracted immigrants who then contributed to natural growth of the country. As in Argentina, this transoceanic population is now relatively old. Since those aged 40-60 form a majority, it appears that this population is not growing. It is a population that by some measures is very educated, particularly the men. It is also a population of professional or highly-skilled technicians, settled temporarily or permanently to develop the country and mainly employed in commerce, manufacturing and the service industries.

VENEZUELA

Wealth from oil has made Venezuela the most attractive country in South America for immigrants in recent times.

According to the 1981 Census, a little over a million persons were born outside the country, 7.2% of the population of 14 million. About 350,000 were Europeans, mainly from Spain, Portugal and Italy. This immigrant population is younger than in other South American countries, which shows that immigration is still taking place. Net migration was positive throughout the 1970s. Numbers fluctuated according to the political situation, always greatly influenced by the country's oil revenues, which increased by 5% to 6% in the 1960s, 18% in 1971, 31% in 1973 and 160% in 1974.⁶⁰

⁶⁰ J. Balan. *International Migration Today*, vol. I, UNESCO, University of Western Australia and Center for Migration and Development Studies, 1988, ISBN 92-3-102527-9.

**Table 30. Registered Foreign-born Population in Venezuela,
by Country of Origin, 1941-1971**

Origin	1941		1950		1961		1971	
	Number	%	Number	%	Number	%	Number	%
Western Hemisphere	23,000	48	64,000	33	125,000	27	240,000	40
United States	4,000	7	11,000	6	12,000	3	11,000	2
Colombia	17,000	35	41,000	21	88,000	19	180,000	30
Others	3,000	6	11,000	6	25,000	5	49,000	8
Europe	24,000	49	127,000	66	320,000	69	330,000	55
Italy	3,000	6	43,000	22	114,000	25	88,000	15
Spain	7,000	14	36,000	18	135,000	29	150,000	25
Portugal	1,000	1	11,000	6	40,000	9	60,000	10
Others	13,000	28	37,000	19	31,000	7	32,000	5
Others	1,000	3	3,000	2	17,000	4	27,000	5
Total	48,000	100	194,000	100	462,000	100	596,000	100

Source: National Censuses, Venezuela.

**Table 31. Net Migration for Venezuela by Nationality,
1971-1979¹**

Year	Colombia	Other Latin American Countries	Europe	Others	Total
1970	7,000	2,100	-6,100	8,000	11,500
1971	10,500	7,800	1,600	5,900	26,500
1972	5,800	1,300	2,500	1,200	10,800
1973	9,800	8,100	4,600	-7,500	22,400
1974	24,700	20,400	25,100	-30,000	70,700
1975	27,700	13,000	7,700	1,200	51,200
1977	10,800	7,100	-2,700	100	5,700
1978	9,000	31,000	23,000	34,900	102,200
1979	-4,400	11,000	9,600	3,800	23,100

¹ Official data unavailable for 1976.

Source: Kritz and al., 1981, p.225; Kuper-d'Alessandro, 1982, p. 75 (from official statistical volumes).

However, according to experts, legal immigrants are outnumbered by illegal immigrants, especially from Colombia, who number between 500,000 and 2 million. These immigrants are similar to the Paraguayans in Argentina – rural people who settled in agricultural areas abandoned by Venezuelans moving to cities.

**Table 32. Foreign-born Population of Venezuela, by Age Group,
1981 Census**

Age	Place of Birth					
	Total	Spain	Portugal	Italy	United States	Others
Total	1,048,159	141,760	90,629	79,106	13,027	723,637
0-9	66,015	3,682	4,669	1,118	3,263	53,283
10-19	113,726	5,720	8,739	2,333	2,715	94,219
20-29	251,872	16,688	23,044	6,046	2,133	203,961
30-39	240,719	26,956	21,878	14,364	1,833	175,688
40-49	175,200	36,168	16,550	23,924	1,239	97,319
50-59	122,435	32,355	10,214	20,383	1,251	58,232
60+	78,192	20,191	5,535	10,938	593	40,935

OVERVIEW AND CONCLUSION

Our overview of principal world migration trends reveals several important features of direct or indirect interest to Canada.

The day of populating countries is past. Consequently it is misguided to think of Canada as a country needing immigrants to populate the frontier in the short or medium term. In current world economic conditions, the need for land and space to live has, momentarily, disappeared. Almost all recent immigrants to Canada and the United States live in large cities. For example, with few exceptions, the Vietnamese refugees, sponsored and welcomed by rural communities, have gradually migrated to large Canadian centres.⁶¹

The former migratory flows, based on population supply and demand and similar cultural identities, supported by commercial and political institutions with long-standing policies, have dwindled. These movements are now based on the same mutual advantages, but, because of political and economic changes, are numerous, temporary and more precarious. Also, more problems adapting and integrating exist because of the greater diversity of persons and countries. For this reason, the distinction between traditional immigration countries and other regions of the world is becoming ever more blurred, whereas a clear distinction between developing countries and industrialized countries becomes evident.

Industrialized countries are increasingly confronted with difficult situations in their relations with underdeveloped countries. In fact, avoiding the current pressure from Third World countries would have required preventing their demographic growth after World War II. To do this, industrialized countries would have had to make an unthinkable and impossible decision like refusing Third World countries easy methods (such as new medical treatments) to lower their mortality rates which until that time had nullified their high birth rates. Since this rapid demographic growth is now a fact, one widespread thesis holds that these countries must be provided with the means to achieve higher standards of living, resulting in less desire to emigrate to wealthy countries. However, it is known that this reasoning, while it may be sound, cannot be directly applied in the real world. It has been noted that one of the first results of development in a country is emigration pressure (see Introduction). To develop, these countries must have significant capital. Only industrialized countries can supply this capital through various methods such as direct aid from state to state - grants or loans - some of which will never be repaid. Another method is to take in immigrants who send money home to their families and inject capital into their countries. Those who propose this theory believe there are four reasons why this solution would work: (1) it reduces pressure on the job

⁶¹ The 1986 Census shows that of 23,970 Vietnamese immigrants entering Canada between 1970 and 1980, 21,460 (90%) lived in a Census Metropolitan Area.

market in the workers' own countries; (2) the country receiving the immigrants has the benefit of their work; (3) the industrialized countries become a training school for the immigrant workers; and (4) the workers' home countries usually receive more money this way than from direct aid. In practice, the results are not clear. Moreover, it is not evident that industrialized countries have an absolute need for labourers. Immigrants then could become a burden (although they are always useful to entrepreneurial recruiters) when social costs – welfare, pension payments and health care, to name only the main ones – exceed their contribution to production.

Seen in retrospect, prohibiting immigration, as European industrialized countries have done, increases pressures on borders and illegal immigration results. In such circumstances, increasing direct aid to developing countries seems advisable. Industrialized countries appear to have difficulty setting up such aid for various reasons, ranging from fear of misuse to lack of funds in national budgets.

This fundamental, insuperable problem between industrialized and Third World countries is now reflected in a similar problem between Western industrialized countries and former Eastern bloc countries in economic difficulties. Unless their economies recover quickly, additional pressure will be put on the Western borders. At the same time, South-North pressure will increase since part of the aid formerly sent to the South will go to Eastern countries. At the first G7 meeting on financing the USSR's financial recovery (summer 1991, London), the clearly differing attitudes of European countries on the one hand, and of Canada, the United States and Japan on the other, were apparent. The Europeans fear excess supply of workers because they are so geographically close to the USSR; the other group takes a calmer view because distance protects them from direct pressures.

Canada is sitting in a privileged position – far from the Eastern bloc and the Third World, and rather protected from South and Central American illegal immigrants by the proximity and attractiveness of the United States. It might be asked, however, how long this situation can continue in a world that is shrinking into a global village as rapidly as population is increasing.

It is obvious that distribution of world population will change in the long term, but in the short and medium term, it is uncertain what course international migration will take. It is difficult to predict industrialized countries' (such as Canada) interest in increasing their populations, as well as their ability to keep in check people wanting to settle in wealthy countries. Refugees will be the big variable for some time to come. The disappearance of the socialist regimes in Eastern Europe and the dismantling of the former USSR certainly do not mean the end of racial, religious, and political oppression. On the contrary, a period of instability – during which reorganization of a society that has up to now been controlled – will likely give rise to intolerance and

REFUGEES

Refugees are now at the forefront of international attention. In all areas of the world, intolerance (and in particular, wars) force individuals, sometimes in significant numbers, to flee their countries and seek asylum in another part of the world. A massive exodus is generally a short-distance move to a neighbouring country. This is the case, for example, of Somalia or Sudan taking in Ethiopians by the hundreds of thousands, and of Iran and Pakistan giving refuge to millions of Afghans. In other cases, bigger groups of people scatter to much farther distances. The American Council for Nationalities Service has counted worldwide refugees by continent and per country, using the best available data for 1989 (see next table). The grand total, an impressive 15 million persons, of whom Europe and North America together have taken in only 700,000. Canada has taken in 22,000 – 122,000 if we count the requests from previous years waiting to be processed. This category of migration is most intense in Africa, with 4.5 million, and the Middle East and South East Asia with twice as many as Africa. However the 22,000 figure for Canada should not be misinterpreted. This is the number of persons who requested refugee status in 1989. We must consider that from 1975 to 1988, 252,225 refugees were admitted as landed immigrants and most of them are now Canadian citizens.

force many individuals to migrate. It will always be difficult to know whether people are fleeing solely to avoid violence, or whether they are departing to search for better economic conditions when stagnation is installed in the country.

*Refugees and Asylum Seekers requiring Protection and/or Assistance¹
by Country of Reception*

[illegible]

GRAND TOTAL: 15,093,900

¹ *Declared refugees and asylum seekers – some need protection but not assistance. Such refugees can be termed international. A better view of the phenomenon is provided by including internal refugees (i.e., those inside a country but required to stay in a different region within that country). The estimated number of such persons varies between 13.5 and 18.3 million.*

+ To the Europe and North American totals, must be added 450,000 unprocessed requests over the preceding years, including 100,000 in Canada.

++ Without adding 720,000 Germans who entered as emigrants, in 1989.

+++ *This number does not include 250,000 Turks from Bulgaria, received as immigrants.*

Source: World Refugee Survey. U.S. Committee for refugees, American Council for Nationalities Service - ISBN 0-9365-48-05-7.

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Glossary¹

Census year: A neologism patterned after “fiscal year”. In Canada, it refers to the 12-month period between June 1 of one year to May 31 of the following year. It can equally designate the year during which a census is held.

Cohort: A group of individuals or couples who experience the same event during a specified period. For example, there are birth cohorts and marriage cohorts.

Cohort, fictitious: An artificial cohort created from portions of actual cohorts present at different successive ages in the same year.

Crude rate: Relates certain events to the size of the entire population. For example, the crude birth rate for Canada is the ratio of the number of births in Canada in a year to the size of the Canadian population at mid-year. Crude death rates and crude divorce rates are calculated in the same way.

Current index: An index constructed from measurements of demographic phenomena and based on the events reflecting those phenomena during a given period, usually a year. For example, life expectancy in 1981 is a current index in the sense that it indicates the average number of years a person would live if he or she experienced 1981 conditions throughout his or her life.

Dependency ratio: A ratio that denotes the dependency on the working population of some or all of the non-working population.

Depopulation: The decline in the population of an area through an excess of deaths over births (not to be confused with the depletion of an area through emigration).

Endogamy: Marriage within a specific group.

Endogenous: Influences from inside the system.

Excess mortality: In differential mortality, the excess of one group’s mortality rate over another’s (see Sex ratio).

Exogamy: Marriage outside of a specific group.

Exogenous: Influences from outside the system.

¹ For further information consult the following: International Union for the Scientific Study of Population, **Multilingual Demographic Dictionary**, Ordina Editions, Liège, 1980; van de Walle, Étienne. **The Dictionary of Demography**, ed. Christopher Wilson. Oxford, England: New York, NY, USA.

Fertility: Relates the number of live births to the number of women, couples or, very rarely, men.

Fertility, completed: The cumulative fertility of a cohort when all its members have reached the end of their reproductive period.

Fertility, cumulative: Total live births from the beginning of the childbearing period until a later date.

Frequency: Frequency of occurrence within a cohort of the events characterizing a particular phenomenon.

Frequency, cumulative: Total frequency from the start of the period of exposure to risk of event up to a later date.

Infant mortality: Mortality of children less than a year old.

Intercensal: The period between two censuses.

Life expectancy: A statistical measure derived from the life table that indicates the average years of life remaining for a person at a specified age, if the current age-specific mortality rates prevail for the remainder of that person's life.

Life table: A detailed description of the mortality of a population giving the probability of dying and various other statistics at each age.

Migration: Geographic mobility between one locale and another.

Natural increase: A change in population size over a given period as a result of the difference between the numbers of births and deaths.

Neonatal mortality: Mortality in the first month after birth (part of infant mortality).

Net migration: Difference between immigration and emigration for a given area and period of time.

Nulliparous: Pertaining to a woman or a marriage of zero parity (has not produced a child).

Parity: A term used in reference to a woman or a marriage to denote the number of births or deliveries by the woman or in the marriage. A two-parity woman is a woman who has given birth to a second-order child.

Population growth: A change, either positive or negative, in population size over a given period.

Population movement: Gradual change in population status over a given period attributable to the demographic events that occur during the period. Movement here is not a synonym for migration.

Post-neonatal mortality: Mortality between the ages of one month and one year.

Prevalence: Number of persons with a certain characteristic in a given group of persons.

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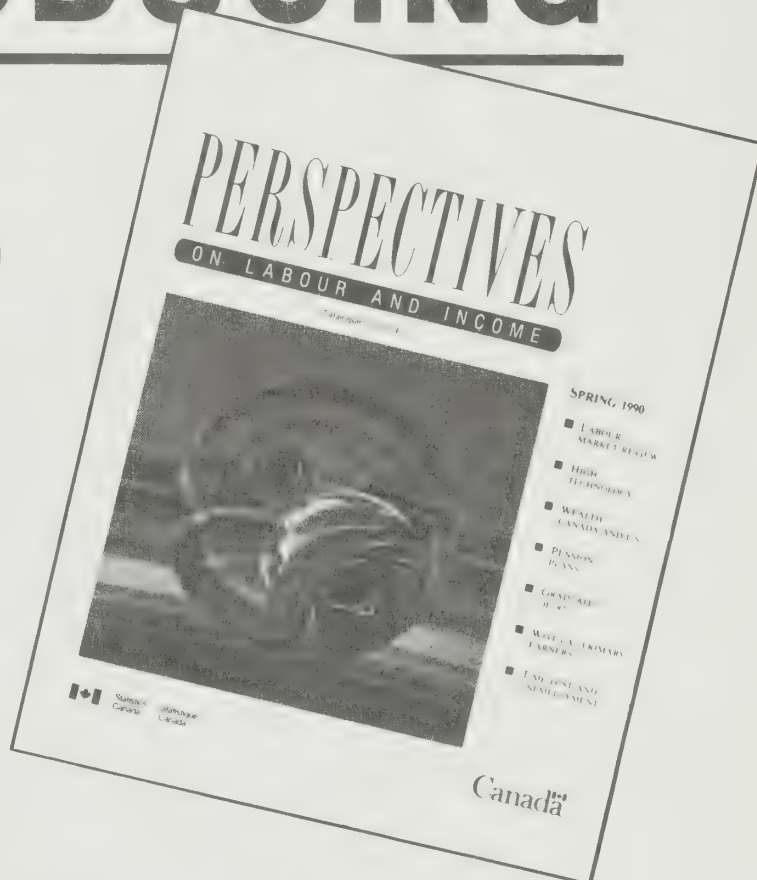
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